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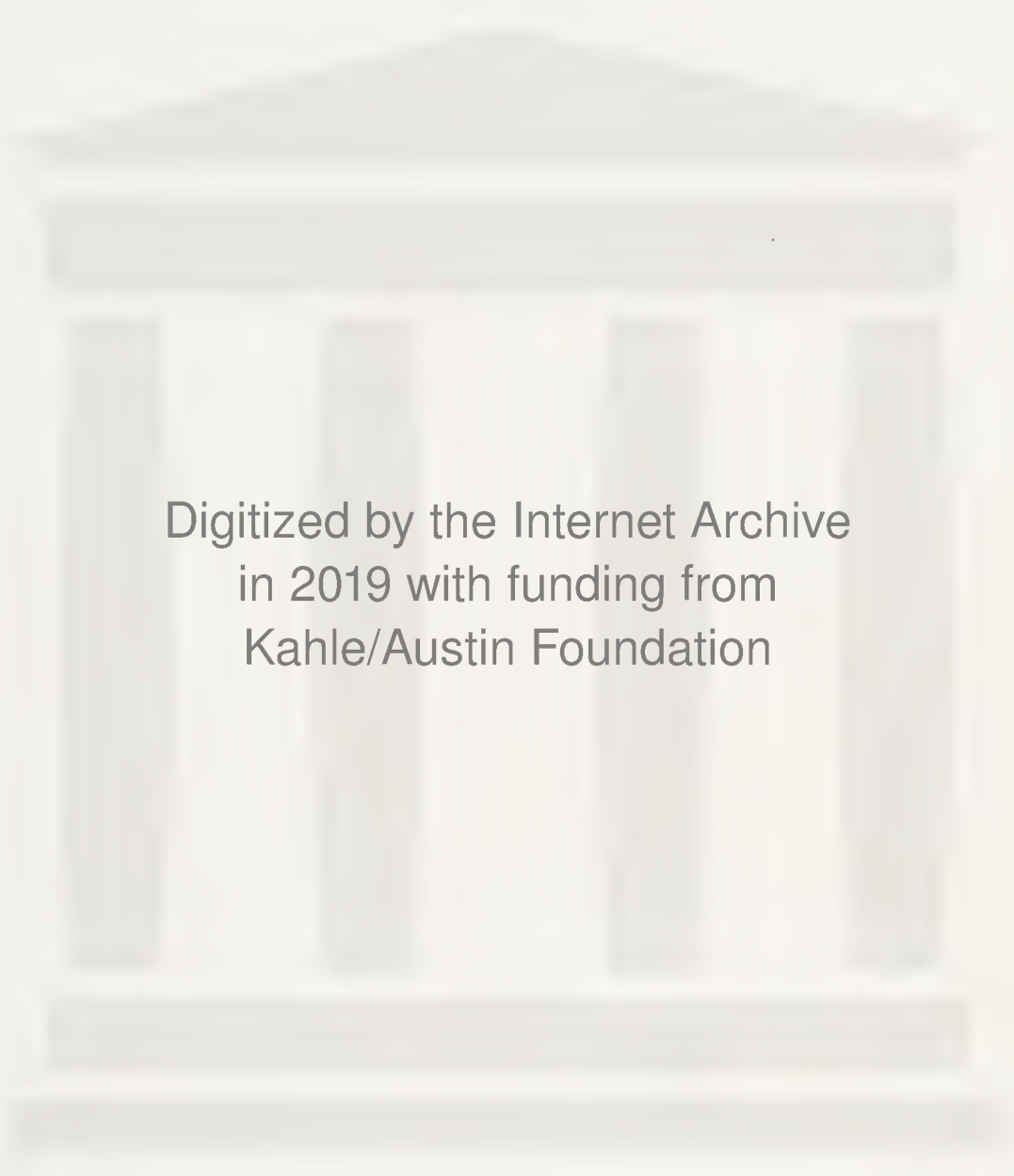
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ARCHÆOLOGICAL  
COLLECTIONS FROM THE  
WESTERN ESKIMOS



REPORT OF THE FIFTH THULE EXPEDITION 1921—24  
THE DANISH EXPEDITION TO ARCTIC NORTH AMERICA IN CHARGE  
OF KNUD RASMUSSEN, PH. D.  
VOL. X. NO. 1

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ARCHÆOLOGICAL  
COLLECTIONS FROM THE  
WESTERN ESKIMOS

BY  
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GYLDENDALSKE BOGHANDEL, NORDISK FORLAG  
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## P R E F A C E

For having given me an opportunity of making studies in American museums for purposes of this work I am deeply indebted to the Carlsberg Fund. My warmest thanks are due to Dr. Clark Wissler of the American Museum of Natural History, New York, to Dr. George G. Heye of the Museum of the American Indian, Heye Foundation, New York, and to Dr. J. Alden Mason, of the University Museum, Philadelphia, for their courtesy in granting me facilities to study the collections in their museums. The photography of the objects illustrated is the work of Mr. S. Bengtsson, whilst Mr. W. E. Calvert has undertaken the translation of my manuscript.

Copenhagen, December 1929.

*Therkel Mathiassen.*

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## I. Introduction.

While on his travels through the land of the Western Eskimos in 1924, Dr. *Knud Rasmussen* did not have time to make any extensive excavations, as work of this kind necessitates a protracted sojourn at one place, and this was not within the plan of the journey. He succeeded, however, in acquiring a large archaeological material from these regions, a material that had principally been procured through the agency of white traders and trappers or through Eskimos. Thus it was not systematically excavated; but as it is very large and contains many interesting objects, and as little has hitherto been known of the archaeology of the Western Eskimo region, the most important parts of it will be described and illustrated in the following. It is obvious from the nature of the collection that no far-reaching chronological conclusions can be drawn from it; this work must therefore for the most part be descriptive, of use to future archaeologists. At the end of the work, however, an endeavour has been made to summarise the results obtainable on the basis of the present material concerning the archaeology of the Western Eskimos, although occasionally it will be necessary to draw into the discussion other collections which, however, have only partly been published up to the present time.

What has hitherto been published on the archaeology of the Western Eskimos is soon told. In the fundamental works for the ethnography of these regions: the monographs of *J. Murdoch* and *E. W. Nelson* on the Point Barrow and the Bering Strait Eskimos respectively, old specimens taken from the ground are referred to here and there; the same applies to *W. Bogoras'* "The Chukchee", that basic work on the Chukchi and the Asiatic Eskimos. In *A. E. Nordenskiöld's* book "Vega's färd", brief mention is made of the result of the excavations at North Cape, on the north coast of Siberia. On his second expedition *V. Stefánsson* made extensive excavations, partly in the Parry and Langton Bay region east of the Mackenzie, and partly about Point Barrow; this considerable collection, which is now divided between the American Museum of Natural History in New York and the Na-

tional Museum at Ottawa, was not systematically excavated, however, and only a part of it has been published in Dr. *Clark Wissler's* paper: "Harpoons and Darts in the Stefánsson Collection", the first scientific work on a Western Eskimo, archaeological material; the conclusions justified by this material are, however, weakened by the fact that the excavations were not made strata by strata. In 1914 *D. Jenness* made systematic archaeological excavations on Barter Island, but his important collection, now in the National Museum of Canada at Ottawa, has not been published. In 1926 Jenness made excavations on Cape Prince of Wales and Diomed Islands, where he brought to light the first specimens of the remarkable Bering Sea Culture which he has illustrated in "Problems of Polar Research"; similar specimens were obtained the same year by Dr. *A. Hrdlička*, of the Smithsonian Institution, on a journey to the Bering Strait; some specimens of the same culture, in the Museum of the American Indian, Heye Foundation, and the National Museum, Copenhagen, have been described by the writer in *Indian Notes* 1929. In my earlier work, "Archaeology of the Central Eskimos", 1927, I have more closely examined Nordenskiöld's collections and also referred to some specimens from the north coast of Siberia, brought home by Professor *H. U. Sverdrup* from the "Maud" Expedition. At the Americanist Congress in New York in 1928 Dr. *J. Alden Mason* reported on a find of ruins of the Thule Culture at Point Barrow; the large collection from there (in the following called the Van Valin collection, after the discoverer) is now in the University Museum, Philadelphia, where I have had an opportunity of viewing it.

The Aleut must be regarded as a domain for themselves; from a cultural point of view they are associated with Alaska, even if they are rather far removed from the regions from which the present material has come. In 1877 *W. H. Dall* caused considerable stir with his work "On Succession in the Shell-heaps of the Aleutian Islands"; his conclusions, however, have not been confirmed by the great systematic investigations made recently by *W. Jochelson* (Archaeological Investigations in the Aleutian Islands. 1925).

Knud Rasmussen's archaeological collections from the Western Eskimos comprise: From *Point Atkinson*, a little to the east of the mouth of the Mackenzie, 670 specimens, of which 277 were excavated by the Danish trapper *C. J. Pedersen* in 1924, the others by Eskimos; in addition there are 25 specimens from the adjacent *Tugtujartoq*, excavated by Eskimos; these latter, which for the most part are the same types as the Point Atkinson collection, will not be further dealt with. From *Kitikarjuit* in the Mackenzie Delta, 137 specimens, collected by Eskimos, principally of more recent date and of no great

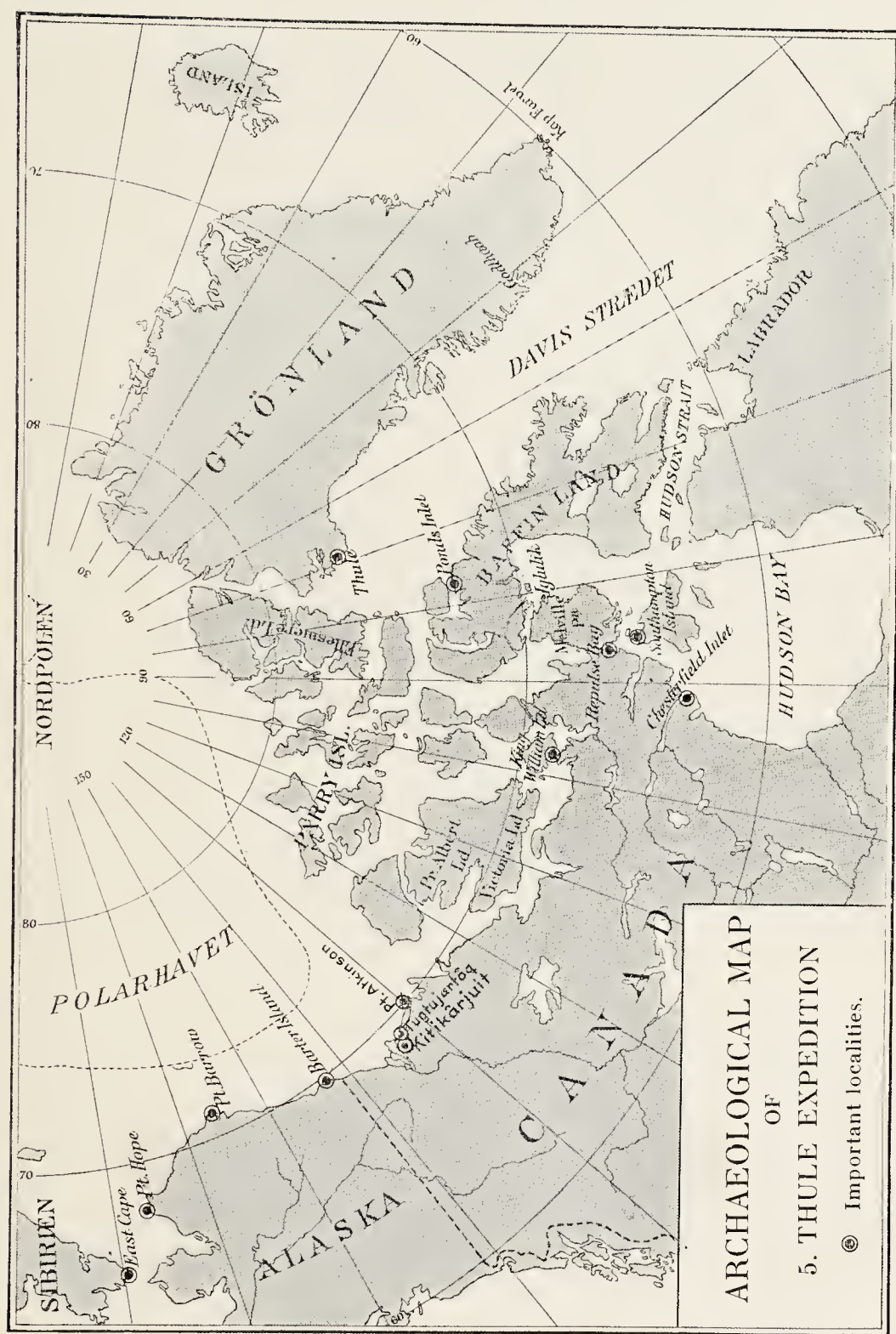


Fig. 1.



interest; this collection will not be described in detail. From *Barter Island*, just west of the Mackenzie Delta, 998 specimens, excavated by the Danish trapper N. Sorensen, whom Knud Rasmussen met on his journey in 1924, when it was arranged that he should excavate. From *Point Barrow*, 537 specimens, acquired through the well-known trader Charles Brower. From *Point Hope*, 836 specimens, some of them excavated by Knud Rasmussen himself, others excavated by Eskimos. From *East Cape*, Siberia, 168 specimens, excavated by Eskimos. The situation of these localities is shown in Fig. 1. All these collections are now in the keeping of the National Museum, Copenhagen.

On the East Cape collection I have given a preliminary report in "Archaeology of the Central Eskimos", II, pp. 177—78, and on the other collections in *Geografisk Tidsskrift* 1928 ("Knud Rasmussens arkæologiske vesteskimoiske Samlinger"), and at the XXIII International Congress of Americanists, New York 1928 ("Notes on Knud Rasmussen's archaeological collections from the Western Eskimos"). Furthermore, when dealing with the geographical distribution of the Thule elements in Part 2 of "Archaeology of the Central Eskimos" I have frequently made reference to these collections, and two needle cases in human form (p. 93) and a comb with a human head (p. 115) from Point Hope were figured there.

## II. The Point Atkinson Collection.

Point Atkinson lies between the mouth of the Mackenzie and Cape Bathurst, in lat.  $69^{\circ} 55' N.$ , long.  $130^{\circ} 43' W.$  The name was given it by Dr. J. Richardson<sup>1)</sup>, who as the first white man travelled along this part of the coast on Juli 13th, 1826. He called the place Atkinson Island, saying that "a narrow creek" separates it from the mainland. There Richardson came across an Eskimo settlement with 17 winter houses and a large festival house; the houses, which he describes with much detail, were of the usual cruciform Mackenzie type, and of the festival house he says: "The outside, covered with earth, had nearly a semispherical form, and round its base there were the skulls of twenty-one whales".<sup>2)</sup>

When passing there in 1924 Knud Rasmussen acquired from the Eskimos a collection of 393 specimens, and he made arrangements with a Danish trapper, C. J. Pedersen, to make excavations; Pedersen's collection, comprising 277 specimens, has since arrived. Thus in all the collection comprises 670 specimens.

The only archaeological material published from the coast between Mackenzie and Coronation Gulf is harpoon and arrow heads in Stefánsson's collection from the Franklin Bay region<sup>3)</sup>. Thus we have not much comparative material from these places.

### *Harpoon heads.*

Of the 20 harpoon heads in the collection, five are of the *Thule types*, thin, with open shaft socket. Pl. 1.1 (P14.178)<sup>4)</sup> belongs to Thule type 2<sup>5)</sup>, an old, much weathered specimen of typical shape, having the Y-ornament that is characteristic of Central Eskimo Thule harpoon heads; it differs from these, however, in having only one pair of holes for the lashing round the shaft socket. Another, similar specimen<sup>6)</sup>, likewise much weathered, differs only in that the orna-

<sup>1)</sup> Franklin 1828, p. 214.

<sup>2)</sup> I. c. p. 217.

<sup>3)</sup> Wissler 1916, pp. 417—19 and 429—33.

<sup>4)</sup> The specimens from Pt. Atkinson are numbered P14.

<sup>5)</sup> Cf. Mathiassen 1927, II, p. 15.

<sup>6)</sup> Figured Mathiassen, Geogr. T. 1928, fig. 2.1.

ment is lacking and that it is longer, 16.3 cm. Two others are smaller, defective. Pl. 1.2 (P14. 179) belongs to the rarer Thule types, having had its blade at right-angles to the line hole; it is of antler, rather defective. Thule harpoon heads also occur in Stefánsson's collections from this region <sup>1</sup>).

The *most common type of harpoon head* in the Point Atkinson collection is represented by Pl. 1.3-4; thin, with closed shaft socket and the blade parallel to the line hole; of this type there are 13 specimens; 3 (P14. 186) is of antler with a slate blade; 4 (P14. 181) is also of antler, but with a blade of a facettted splinter of leg bone and with a groove for a reinforcing lashing about the shaft socket. A third has a blade of copper; three are of whale bone and on three the blade slit has been formed by drilling. This type is predominant in the Franklin Bay area too <sup>2</sup>). Pl. 1.5 (P14. 180) differs from this type in having two barbs; it is of whale bone and has also had a lashing round the shaft socket, which has split. This type, too, has been found at Langton Bay <sup>3</sup>). Pl. 1.6 (P14. 142) is the only harpoon head in the collection that belongs to the slightly flattened forms, in which the line hole lies in the same plane as the barbs; it is of antler, has an iron blade, and gives the impression of being later than the other harpoon heads in the collection.

Pl. 2.1 (P14. 27) is a *whaling harpoon head* of the usual type, of whale bone, nicely rounded, with the line hole near the sharp ridge. It very strongly resembles a similar specimen from Cape Bathurst <sup>4</sup>).

#### *Other objects connected with harpoons.*

Pl. 2.3 (P14. 28) is a *foreshaft* of whale bone, slender, slightly curved, pointed at both ends, with lateral line hole; of the same form are two foreshafts of heavy leg bones, from the adjacent Tugtutjartoq and Kitikarjuit. Another, of antler, is 51 cm long, with median hole; a third is of wood with lateral hole, the fore end being defective; but they all have the conical rear end that is characteristic of the loose harpoon-foreshafts of the Thule Culture <sup>5</sup>). There is a similar, very slender foreshaft from Baillie Island. <sup>6</sup>).

All the *socket-pieces* of the collection are of the same type as Pl. 2.2 (P14. 31): of whale bone, wedge-shaped at the rear, at the base of which is a drilled hole, above this an almost round part and widened laterally at the front, with a relatively small socket to fit the

<sup>1</sup>) Wissler 1916, figg. 22 and 23 b.

<sup>2</sup>) I. c., figg. 19—21.

<sup>3</sup>) I. c., fig. 23 a.

<sup>4</sup>) I. c., fig. 18 b.

<sup>5</sup>) Mathiassen 1927, II, p. 32.

<sup>6</sup>) Wissler 1916, fig. 38 g.







pointed rear end of the foreshaft. In particular this lateral widening seems to be characteristic of this find; we find it again on a specimen from Tugtojarloq, but it is lacking on specimens from Langton Bay and Baillie Island, although the latter has the same form at the rear end <sup>1)</sup>).

A number of heavy points of antler are possibly *ice picks*, although they have not the shape of the upper end that is characteristic of these implements; a similar specimen from Okat in Langton Bay is figured <sup>2)</sup>).



Fig. 2. 1 : 3.

#### *Sealing stool.*

Fig. 2 (P14. 212) is the seat of a sealing stool of wood, open at the front, with three holes for the legs; the upper side is flat, the under side slightly domed.

#### *Archery.*

A *sinew-twister* for the sinew-backing of a bow, of the usual form, is of walrus ivory, slender, with median hole; 12 cm long.

Pl. 1. 7 (P14. 237) is a *bracer*, rather small, of ivory, with dot ornamentation; another, of antler, is bigger, with almost square ends.

Pl. 2. 4 (P14. 236) is an *arrow straightener* of antler, of the usual form; there is a similar specimen from Kitikarjuit.

*Arrow heads.* All the many arrow heads of the collection have a conical or pointed tang; most of them have no projection on the tang, a few have two knobs or a faint roll; most have unilateral barbs (1—9), though one or two have bilateral and others no barbs. As a rule the material is antler, but a few are of caribou leg bone.

<sup>1)</sup> Wissler 1916, fig. 38 i and f.

<sup>2)</sup> l. c., fig. 38 k.



On Pl. 1 are a number of characteristic arrow heads; 13 (P14. 69), 17 (P14. 82), 18 (P14. 67) and 19 (P14. 77) are of antler, with unilateral barbs; 18 has a very faint roll round the tang which, on the others, is smooth. 20 (P14. 76) is of leg bone and at the rear end has four short transversal lines as an owner's mark. 15 (P14. 81) is likewise of leg bone, but without barbs. 14 (P14. 84) is of antler and has had a barb on each side; the tang is flat and has knobs at different heights. 16 (P14. 91) differs from the others in that it has no distinct tang, the rear end being evenly tapered to a point; this may be a leister prong. None of the arrow heads of the collection have had a separate blade.

Of blunt bird-dart heads there is one of slate (Pl. 3. 9., P14. 158); the rounded head has seven ridges, and at the rear it terminates in a narrower tang. A similar one of antler, 5.3 cm long, is cleft at the rear to fit on to the shaft.

In Stefánsson's collection from the Franklin Bay region<sup>1)</sup> we again find the same types of arrowheads as those now under review; among these, however, are a few that have had separate blades.

#### *Blades for weapons.*

In the collection is a large number of stone blades for harpoons, lances, arrows, but they can be grouped under comparatively few types.

The faceted, triangular *harpoon blades* of slate are most numerous; none of them have holes, but about the middle of the base most of them have a hollowed-out part which fits into the slit of the harpoon head. The length of these blades varies from 3.1 to 6.2 cm. The greatest width is oftenest at the base, which is frequently slightly concave (Pl. 3. 2., P14. 146); on others the rear corners are rounded, so that the greatest width is a little higher up, as on Pl. 3. 1 (P14. 145). On the side faces of this latter specimen there are oblique grooves, which seem to have been made by drilling for the purpose of splitting the slate; there are faint traces of similar drill work on two knife blades; this is the same technique that has previously been observed as regards the Belcher Islands<sup>2)</sup> in Hudson Bay.

We have the same form of harpoon blade in bone, in these cases always with a hole, and in silicious slate, in which it is naturally more imperfect (Pl. 3. 3., P14. 51).

Pl. 3. 4 (P14. 159) is a rather defective blade for a *whaling harpoon*, of light, polished slate, with a hole at one corner.

<sup>1)</sup> Wissler 1916, fig. 36.

<sup>2)</sup> Mathiassen 1927, I, p. 291.







Pl. 3. 5 (P14. 127), an example of others in the collection, is a *lance blade* of black silicious slate, unpolished, thick, crudely made; one specimen, 8.1 cm long, reproduces the same form in polished slate.

A number of stone blades, small, oftenest slender, with a more or less distinct tang, are presumably *arrow heads*, as for instance Pl. 3. 7 (P14. 104), of black silicious slate, unpolished, and Pl. 3. 8 (P14. 107), of polished slate. Of polished slate there are two slender blades with a distinct tang, measuring  $8.6 \times 2.5$  and  $7.4 \times 1.6$  cm respectively; a third, wider blade with a broken point has two notches in the rear end<sup>1)</sup>. Two other blades are of quartzite, fairly wide, unpolished, without distinct tang, 3.2 and 4.2 cm long respectively.

A peculiar slate blade is figured on Pl. 3. 6 (P14. 158); it is slender, polished, with a powerful barb; presumably this, too, is for an arrow head. In a small collection brought home by Knud Rasmussen and also presumed to be from the Mackenzie region, there is, by the way, a similar arrow head and also one, 0.075 m long, with a distinct tang and with bilateral barbs; both are of polished slate.

#### *Bola.*

A pair of bola balls has been formed by cutting through a rather thick rib (probably of walrus); the surface has been only roughly worked; at one end is the hole.

#### *Fishing gear.*

Of *fish hooks* there is a rather large number, some characteristic specimens being shown on Pl. 1: 9 (P14. 222) consists of a flat piece of antler, notched at the edge, in which is inserted a hook, likewise of antler. Two others are of quite the same form and size<sup>2)</sup>; there is a similar but smaller shank from Kitikarjuit; it seems to be a type peculiar to these regions. 8 (P14. 224) has a slender shank of ivory and a small hook of copper. 10 (P14. 226) is a shank of ivory, its arched back being decorated with rows of holes. 11 (P14. 230) is a small fish hook entirely of copper.

Pl. 1. 12 (P14. 232) is a shank of whale bone; at the bottom is a large hole for the hook; higher up it is pierced by a hole and there are two drilled holes in the sides, presumably for the bob with which to attract the fish; the large but not very deep holes in the sides at the bottom are probably merely ornamental. Another fish hook is of whale bone, 14.8 cm long, slender, with a large hole for the hook at the

<sup>1)</sup> Figured Mathiassen, Geogr. T. 1928, fig. 2. 5.

<sup>2)</sup> Figured l. c., fig. 2. 6.

bottom and two small holes near the top. All the fish hooks are rather small.

Pl. 4. 5 (P14. 248) is apparently a sinker for a fishing line; it has been smoothed into shape out of a fine-grained, blueish-grey slate. The back of it is very arched, the front flat, hollowed out at the bottom; at the top is a groove for the line, and there are three others at the bottom, apparently for whipping on the hook. Five other specimens are of similar shape <sup>1)</sup>; some are flatter, others arched; the number of grooves at the bottom varies from 0 to 4, but they all have a groove at the top and a hollow or flat base. The length varies from 6.7 to 12.7 cm. It seems to be a type peculiar to this find.

Pl. 2. 5 (P14. 95) is the blade of an *ice scoop* of antler. The blade is split and has been lashed together with baleen cord (of which a small piece still remains). Two other ice-scoop blades <sup>2)</sup> widen out abruptly from the narrow neck to the rounded edge; the handle has been lashed on by means of holes placed some distance forward in the blade; lengths 16.3 and 14.4 cm.

Pl. 4. 4 (P14. 240) is a *mesh gauge* for net-making, of the usual Western Eskimo type <sup>3)</sup>; it is of antler. Two others are of the same form, but one has one hole and the other none.

#### *Snow knives.*

Pl. 2. 6 (P14. 13) is a snow knife of whale bone, old and much weathered; it is of the very curved form with one shoulder on the inside of the curve. There is a similar snow knife from Tugtujartoq, but on this one the knob of the handle extends to both sides and it has a hole. From Point Atkinson we also have the blade of a snow knife of whale bone, very curved, 26 cm long, with seven holes at the end for the handle lashing.

#### *Men's knives.*

There are numerous handles and blades for knives; only two knives are complete, however, with the blade fixed in the handle.

*The handles* are of three types:

1) Long flensing knife with end blade; can be grasped by both hands. Pl. 2. 7 (P14. 24) is the handle of one of these knives; it is of antler, two pieces being scarfed together by means of rivets, of which only two, of bone, are preserved; a blade socket has been made in the

<sup>1)</sup> Figured Mathiassen, Geogr. T. 1928, fig. 2. s.

<sup>2)</sup> One figured l. c., fig. 2. 17.

<sup>3)</sup> Murdoch, fig. 323.







fore end by drilling. Another handle, of whale bone, is broader, especially at the fore end where the blade socket is; crudely made, 26 cm long.

2) Shorter knife handles with end blade. This is much the more frequent type. Two are of wood, the others of antler. About half of them have a suspension hole in the rear end, and two are made of two pieces rivetted together.

Pl. 4.1 (P14.40) is a knife of this type, with handle of antler and a two-edged blade of cold-hammered copper. A rather smaller knife has a similar handle, but without the hole, and a narrow, single-edged, much weathered iron blade. Pl. 4.2 (P14.26) is a somewhat older looking handle of antler, ornamented on both sides with the same pattern. Two of the handles have in one edge a row of notches to fit the fingers; one is of wood, the other of antler, small, fairly new, with traces of rust and with dot ornaments. Pl. 4.3 (P14.257) is a small handle of antler, fairly new, with verdigris and rust in the blade socket; on one side there are ornaments, on the other at the fore end a large, shallow pit for the thumb.

3) Handles of whittling knives, made of two longitudinal halves. We have only one half, of whale bone, 10.8 cm long; at the fore end is a socket for the blade and a collar for the lashing.

Of *stone blades* for knives the most important types will be seen on Pl. 3. 10 (P14.131) is an unusually long and handsome, two-edged slate blade, painstakingly polished over the whole of its surface, 20 cm long; the butt end is broken off; the hand-grip has presumably been so long that the blade was not required to be set in any separate handle. 11 (P14.132) is a much broader, two-edged slate blade whose tang has scarcely been longer than it is now, but has been inserted in a handle. 14 (P14.133) is a small, two-edged slate blade which has presumably belonged to one of the short knife handles with end blade. 13 (P14.106) is a similar blade of unpolished silicious slate; these small blades are often difficult to distinguish from weapon blades, but those now being described seem to be too large to be arrow heads and too narrow to be lance blades. 12 (P14.205) is a large, carefully made, two-edged knife blade of black, unpolished silicious slate; the butt end is broken off.

15 (P14.101) is an unsymmetrical but two-edged, polished slate blade; others, of a similar, pointed form, are single-edged. 16 (P14.103) is a single-edged, polished slate blade with rounded point and a fairly thick back. Finally, 21 (P14.116) is a small knife blade of green, polished jade with a short, oblique edge, probably used as a sewing knife.

A thick, flat point of bear bone has presumably been used as a



*dagger*<sup>1)</sup>; it has a hole in the butt end, no marked handgrip and is 24 cm long. A similar one is from Kitikarjuit.

### *Adzes.*

All the *adze heads* belong to the type that is represented by Pl. 2. 10 (P14.57), on which there are no holes through the neck, a cut having served as a bed for the lashing which held the head on the handle. The one figured is of whale bone, carefully formed; the blade socket is broken. Otherwise the form varies, from specimens that have barely been worked at all except for a socket in one end, to flat heads that widen out gradually from rear to front, and heads which, like the one figured, are well made with a groove for the lashing. Most of them, particularly the roughly made specimens, are of antler.

Pl. 3. 17 (P14. 136) is an *adze* blade of polished green jade; the cutting sides form an angle of about 60°. Another jade adze blade has a narrow neck, is 4.4 cm long and 3.0 cm wide. Two slate blades are 6.8 and 5.1 cm long respectively; on these the cutting sides meet at a more acute angle.

An *adze handle* of wood is broad at the fore end, with a large hole and a face for the blade to lie against, forming an angle of about 70° with the longitudinal direction of the handle; the rear end is thin and round, with a very pronounced knob; 25½ cm long.

### *Drills.*

The only *bow-drill* in the collection seems to be fairly new, with a round shank of ivory that is thicker at the lower end, and an iron bit. Of *mouthpieces* there is one of caribou astragalus. Of *bows* there is one of antler, flat, 28 cm long. Another curved piece, of ivory, is flat, wide at the middle, with pointed ends, each of which has two holes; 20½ cm long. It looks rather new and is scarcely a drill bow, but rather the handle of a quiver or tool-bag.

In the collection there are *drill bits* of bone, silicious slate, green jade, slate, and copper. A specimen of bone is 6.0 cm long with a broad butt tapering down into the thin, round, rather defective point. A specimen of jade has a four-sided butt and round point, but both ends are defective. A drill of copper is 10.7 cm long, round at fore end, chisel-shaped point, and pointed at the butt, whereas it is four-sided at the middle.

Pl. 3. 22 (P14. 287) is a *hand drill* of black silicious slate with a wide hand-grip and thin point. Pl. 3. 24 (P14. 110) is a similar drill but thinner; it has, however, presumably been set in a shank.

<sup>1)</sup> Murdoch, figg. 174—75.







*Other men's tools.*

A blade for a *mattock* is of whale rib, with three pairs of notches in the neck end; a similar specimen with four pairs of notches, is from Kitikarjuit.

A number of *wedges* are of whale bone and of antler, of various sizes.

A *whetstone* is of slate, flat, with two whetting surfaces.

*Women's knives (ulos).*

Pl. 4. 11 (P14. 2) is an ulo with a slate blade and a handle of wood, strengthened with sinew-thread whippings round the ends. Pl. 4. 10 (P14. 10) is a handle of whale bone with a large and rather wide socket for a slate blade. Both these forms are known from the Central Eskimo Thule finds; a third one of these types, the trapeziform ulo handle with a median hole<sup>1)</sup> is also represented here, but only by a fragment.

Of the numerous *ulo blades* of slate in the collection most are more or less trapeziform, with a long, curved edge and a short back, which sometimes has the rudiment of a short tang. Only one of the ulo blades has a hole: Pl. 3. 23 (P14. 11), a large, rather defective blade with an elongated hole cut in it. An ulo blade from Tugtujartoq is  $21 \times 12\frac{1}{2}$  cm.

Pl. 4. 23 (P14. 207) is an implement that seems to be related to the ulo. In a large, flat, irregular handle of antler is a polished slate blade, too slender to be used as an axe.

*Scrapers.*

Pl. 4. 6 (P14. 123) is a *scraper handle* of wood, with a sharply bent grip and a small but wide socket for a stone blade; the surface is badly hacked, as if the handle had been used as a cutting board. Other three handles of the same kind are likewise of wood<sup>2)</sup>; all have a broad fore end, in which is the blade socket, and a narrow, bent-over grip; in one of them (for a left-handed worker) is the blade, one of the usual convex-edged scraper blades of black silicious slate, with one flat and one arched side.

The collection contains a large number of these *scraper blades* of slate, quartzite, flint and silicious slate. The most common form will be seen on Pl. 3. 19 (P14. 121); it is of black, unpolished silicious slate and very arched; others have a shorter but more distinct tang.

Pl. 3. 18 (P14. 113) shows the same form in slate; it is polished and

<sup>1)</sup> Mathiassen 1927, I, Pl. 24. 6.

<sup>2)</sup> One figured Mathiassen, Geogr. T. 1928, fig. 2. 18.



less arched. Pl. 3.<sup>20</sup> (P14. 114) is a small, almost symmetrical blade of reddish-brown silicious slate.

An arched, thin, four-sided plate of ivory with rounded corners has at one end a prolongation with a hole; it measures  $0.087 \times 0.049$  m and is apparently a *fat scraper*.

#### *Sewing implements.*

Two *sewing needles* are of copper, thin, 4.5 and 3.2 cm long respectively, one with a round, the other with an elongated eye.

A cylindrical bone tube, 7.6 cm long, 1.0 cm diameter, is possibly a *needle case*; it is decorated with five pairs of rings and three longitudinal rows of short transversal lines.

#### *Lamps.*

Of lamps the collection includes a large one of wood of the common segment shape, one edge almost straight, the other curved; 50 cm long and 20 cm wide; the front edge is somewhat spoiled by burning. A limestone lamp has been of almost similar form and size, but only one end of it is preserved. In soapstone there are only toy lamps, of the same form, 2.5 to 5.6 cm long; most of them have a longitudinal division nearest the back or in the middle; in two of them this division is interrupted by a notch (Pl. 4. 7., P14. 317).

#### *Cooking pots.*

*Soapstone cooking pots* are only represented by a small toy specimen, four-sided,  $4.6 \times 2.5$  cm, with no suspension holes. There are, however, three large sherds of round *earthenware pots*. The clay is rather loose in consistence, only slightly baked, mixed with gravel and pieces of stone, and seems to have been made in the hand, not built up of strips; it is apparently the same kind of pottery that Stefánsson found in Franklin Bay district <sup>1)</sup>, and later has been found so far towards the east as King William's Land and Repulse Bay <sup>2)</sup>. Pl. 2.<sup>9</sup> (P14. 39) is the largest of these sherds; it is of a round cooking pot which has been fairly high, about 23 cm; the thickness varies from 1.4 to 2.2 cm; inside it is crusted with food remains. The others are smaller, edge fragments of similar pots; there is also one from Tug-tujartoq.

#### *Other household utensils.*

Two flat *meat trays* are of wood; one of them, oval, wider at one end than at the other, measures  $33\frac{1}{2} \times 21$  cm and is quite flat and thin; the other is round and smaller.

<sup>1)</sup> Stefánsson 1914, pp. 312, 328.

<sup>2)</sup> Mathiassen 1927, I, Pl. 27 and 84. 12.

Pl. 2. 8 (P14. 213) is a flat *spoon* of wood; on the knob of the handle are two lines (owner's mark?). Another spoon is deeper, with a large triangular bowl and a short, pointed handle; 22 cm long.

Pl. 4. 9 (P14. 256) is a *marrow extractor*, made of caribou leg bone: the point is flat and slightly bent. Another, made of the same bone, is thicker, hollow, pointed at one end, 26 cm long.

A long, thin, rather curved point of antler is presumably a *meat fork*.

Two specimens have apparently served as *pot or meat hooks*. They are both of antler; one is only 10 cm long, a well bent hook with two holes at one end; the other is 35 cm long, formed of two branches of antler; it has a suspension hole in the longest branch, the other being pointed.

#### *Snow goggles.*

A pair of snow goggles of antler are rectangular, arched, and in both top and bottom have a hollow for the nose; for the eyes there are narrow slits, which towards the middle have small round widenings; at the ends are transversal rows of small holes for the thongs. 12.2 × 2.9 cm.

#### *Combs.*

Pl. 4. 8 (P14. 261) is an old, handsomely ornamented comb of antler: the ornamentation is only on the arched side, which consists of the crust of the antler. Another comb has a very narrow handle with a hole; there is a similar specimen from Tugtujartoq.

#### *Articles of personal adornment.*

The collection contains eight *labrets*; the various forms are seen on Pl. 4: 12 (P14. 320) is of grey soapstone, rather flat. 13 (P14. 322) is of mammoth tusk, of similar shape. 14 (P14. 323) is a more rounded form, of a soft, greenish stone, probably serpentine. 15 (P14. 321) is rather flat, of black, slaty stone. 16 (P14. 264) is of light grey limestone.

Pl. 4. 17-18 (P14. 272 and 271) show two *pendants* of slate. No. 17 is flat on one side, domed on the other, where it is ornamented; No. 18 is more irregular in shape, domed and ornamented on both sides. Slate ornaments of this kind are not otherwise known from the Western Eskimos, but there are many of them in the find from Naujan<sup>1)</sup> (Thule Culture).

Pl. 4. 19 (P14. 324) is a small, flat carving of the same light, blueish-grey slate. 20 (P14. 325) is a flat, round bead of black slate. A similar bead of soapstone, 2 cm in diameter, is flat on one side, domed on the other, where it has a circle round the hole.

<sup>1)</sup> Mathiassen 1927, I, Pl. 31. 1-7.



Pl. 4. 22 (P14. 269) is the *figure of a whale*, carved in ivory; the suspension hole is fractured. 21 (P14. 329) is another carving in ivory.

#### *Amulet boxes.*

A half of one of the rectangular amulet boxes of wood known from Pt. Barrow<sup>1)</sup>, hollowed out of one piece of wood, with rounded bottom and with three transversal grooves for the tying cord: 13.7 × 4.2 cm. Similar amulet boxes are fairly numerous in the collection from Kitikarjuit.

#### **General Observations.**

The collection from Pt. Atkinson gives the impression of being rather heterogeneous; in it there are objects of very different ages. Whereas certain specimens, such as the harpoon heads of the Thule type and the snow knives, seem from their form and patina to be very old, there are others, such as the harpoon head, the knives and the drill with iron bit, which strike one as being rather recent. The greater part of the find seems to date from the time before there was intercourse with Europeans; at any rate, the frequent occurrence of stone implements indicates that there has not been easy access to iron. On the other hand the types of implements show that the greater part of the find is not especially old; for the most part they are types that were still in use among the Western Eskimos when Murdoch wrote his monograph on the Pt. Barrow Eskimos in 1892. Alexander Mackenzie reached the mouth of the river that now bears his name in 1789; but even if the Eskimos there had not been in direct touch with Europeans prior to that time, they have apparently long before then been able to buy European goods from the Eskimos in North Alaska. Thus we must presumably ascribe to the greater part of the find an age of at least two hundred years. That there are later specimens in the collection is not to be wondered at, as Richardson found the place inhabited in 1826. The copper objects indicate intercourse with the copper regions near Coronation Gulf, whence the soapstone specimens presumably have come too.

Of the types of implements in the collection there are some that display connection with the east, mainly with the now disappeared Central Eskimo Thule Culture. This is true of: the harpoon heads of the Thule type; the slender, loose, harpoon foreshafts with lateral hole; the snow knives with one shoulder; the ice scoop of antler, not known in this form in Alaska (where the ice scoops are oftenest of baleen net), but in the Malerualik Find, King William's Land<sup>2)</sup>; the

<sup>1)</sup> Murdoch, figg. 426, 428.

<sup>2)</sup> Mathiassen 1927, I, Pl. 83. 3.

scraper handles with bent-over grip, which otherwise are not known in the west but are common in the Central region both in the Thule Culture and among the present day Eskimos <sup>1)</sup>); the pendants of slate, which otherwise are only known from the Naujan find.

However, by far the greater part of the find shows that we are on Western Eskimo soil; they are forms that we know very well among the Western Eskimos — those of the present day and in earlier finds.

Of local variants ("provincialisms") of otherwise well-known Western Eskimo types there are: the harpoon socket pieces which widen out laterally at the fore end; the very hollow-ground slate harpoon blades; the fish hooks with the shank notched at the edge; the slate sinkers for fishing lines; the lack of adze heads with holes. These features, in conjunction with the aforementioned more easterly type, give the Pt. Atkinson find a certain special character among the other Western Eskimo finds. When the few very old (for instance the Thule harpoon heads) and quite recent objects are separated from it, this find presumably gives a good idea of the stage of culture in these regions just prior to contact with the white man.

<sup>1)</sup> Mathiassen 1927, II, p. 90.

### III. The Barter Island Collection.

Barter Island is a small island lying off the coast between the mouth of the Mackenzie and Point Barrow, a little to the west of the Canadian frontier (Lat.  $70^{\circ} 5' N.$ , long.  $143^{\circ} 55' W.$ ). It was first visited by J. Franklin<sup>1)</sup> on August 4th, 1826; there he met a number of Mackenzie Eskimos who had traded with the Alaska Eskimos, bartering skins in exchange for iron, glass beads and other European goods. From early times this island has been an important meeting place between the Eskimos who lived more to the east and to the west.

On the Canadian Arctic Expedition 1913—1918, D. Jenness made an extensive, systematic excavation of house ruins on Barter Island in 1914<sup>2)</sup>). As to the locality Jenness writes elsewhere: "In the place were two old village sites, one at the east end of the island and the other at the west; a third, partly excavated in recent years by the Eskimos themselves, was situated on Arey Island, three miles to the westward. Most of the ruins were of considerable antiquity, predating any contact with Europeans; however, the dwelling marked Ruin No. 16, on the west side of the island — — was erected within the memory of Eskimos still living. The graves on the island were also of recent origin, since they contained both iron and European beads"<sup>3)</sup>). The considerable collection from there is now in the National Museum of Canada, Ottawa, but has not yet been published.

On his journey in 1924 Knud Rasmussen at Barter Island met the Danish trapper Niels Sørensen, and with him made arrangements that he should make excavations there and instructed him in the way he should proceed. In the course of that summer Sørensen excavated there and sent the result to Copenhagen; his collection comprises in all 998 specimens. In a letter he says that the collection was taken exclusively from one settlement on the island but that there is another on the other side. The latter is apparently the one Jenness excavated, the one to the west, so that the present collection would come from the easterly settlement.

<sup>1)</sup> J. Franklin 1828, p. 146.

<sup>2)</sup> Jenness 1922, p. 9.

<sup>3)</sup> Cameron, p. 50.









*Harpoon heads.*

Only one belongs to the Thule types, a small, slender, very weathered example of Type 2 (with two opposite barbs); it has grooves for the lashing round the shaft socket and is of antler, 10.1 cm long. From its state of preservation it would appear to be of earlier date than the other harpoon heads in the collection.

Pl. 5. 1 (P13. 2)<sup>1)</sup>, a type which occurs in three examples, differs from the above only in having a closed socket; the specimen figured is of antler and has had a lashing round the socket, without having protected it from fracture, however.

In this collection, as in that from Point Atkinson, the most common type is the thin or almost round harpoon head with one spur, closed socket, and blade slit parallel to the line hole. There are 11 specimens of this type, 5.3 to 10.1 cm long; three of them have a rivet hole for the blade, whereas three others have a wide, sunk part for a lashing round the blade, which in this case has apparently been flint; most of them are of antler, a few of whale bone.

Three specimens differ from this type, the blade being at right angles to the plane of the line hole; the only complete specimen is of antler, 8.2 cm long.

Pl. 5. 2 (P13. 5) is of the slightly flat type, with barbs level with the line hole; the specimen is of whale bone. Pl. 5. 3 (P13. 17) is of antler with an inserted blade of a harder bone; it is cylindrical, with no spurs and with rudimentary barbs at right angles to the blade. The collection also contains two loose bone blades of exactly the same form, with deep hollows on both sides.

A *whaling harpoon head*, of whale bone, is of the same slender type as we have from Pt. Atkinson; the back is less sharp, however; it is 20 cm long.

Pl. 5. 6 (P13. 30) is a heavy head for a *barbed harpoon* (bladder dart or the like); it is of whale bone, with conical rear end, lateral, elongated line hole, three powerful unilateral barbs and at the end a slit for a stone blade like Pl. 5. 11. Two others are quite similar, except that one has only one barb<sup>2)</sup>, and one differs in being of antler and having two opposite barbs and a median line hole; the point is broken off. The length of the complete specimens is 23 to 25 cm.

There is a similar heavy head of whale bone from Tugtujartoq; it has a median line hole, two unilateral barbs and an iron blade and gives the impression of being fairly recent. There are similar heavy heads for barbed harpoons in Stefánsson's collection from Point Barrow<sup>3)</sup>.

<sup>1)</sup> All the specimens from Barter Island have museum number P13.

<sup>2)</sup> One figured: Mathiassen, Geogr. T. 1928, fig. 3. 7.

<sup>3)</sup> Wissler 1916, fig. 34.

*Other objects connected with harpoons.*

All the *foreshafts* are slender, pointed at both ends; some, like Pl. 5. 5 (P13. 36), have a narrow lateral line hole<sup>1)</sup>; others have round, median holes; the length varies from 16 to 35 cm.

*Socket pieces* for the fore end of the harpoon shaft are likewise all of the same type: of whale bone, round, swollen out at the top, wedge-shaped at the bottom and with lashing notches; they lack the widening out to the sides and the hole in front of the tang of the Pt. Atkinson socket pieces, but are more like specimens from Pt. Barrow<sup>2)</sup>. Pl. 5. 8 (P13. 48)<sup>3)</sup> is a typical specimen from Barter Island.

A number of broad, flat points with notches in the butt end are presumably *ice picks*, although on the whole they are more slender than these implements usually are; some are of antler, others of bear bone; some have a distinct tang, others none. The lengths vary from 12 to 31 cm.

Of *blades for harpoon and lance heads* the collection contains a fairly large number. They are mostly the usual triangular, faceted harpoon blade of slate; many are slender with a slight hollow at the base, thus forming something like a pair of faint barbs (Pl. 5. 12., P13. 535); the hollow-ground feature that is so prominent at Pt. Atkinson is not met with here at all. A number of fairly large, polished slate blades, triangular, like the foregoing having no hole, are for whaling harpoons; they are all broken, however.

Pl. 5. 11 (P13. 425) is a slender flint blade with a distinct tang; it is apparently the blade of a weapon head such as Pl. 5. 6; others of similar shape, but smaller (up to 3.9 cm), must be taken to be arrow heads; there are two larger ones in slate.

Some of the lance blades are thick points of dark, unpolished silicious slate, broad, with a wide tang, similar in shape to that figured from Pt. Atkinson (Pl. 3. 5); others are polished slate blades with no tang, but with holes; of this latter form, which is rare among the Western Eskimos, there is only one complete specimen, Pl. 6. 12 (P13. 516).

*Wound Pins.*

Pl. 5. 4 (P13. 70) is a slender wound pin of bone; one, made of a seal flipper bone, the joint head of which forms the head, is thicker, 14 cm long.

<sup>1)</sup> Another fig.: Mathiassen, Geogr. T. 1928, fig. 3. s.

<sup>2)</sup> Wissler 1916, fig. 42. c.

<sup>3)</sup> Another fig.: Mathiassen, Geogr. T. 1928, fig. 3. 6.

### Archery.

Of *twisters* for the sinew backing of the bow the collection contains a few, all without a hole, 8.9 to 10.8 cm long.

A *bracer* of antler is oval, domed, with holes at the sides; two curved longitudinal lines divide the domed side into three fields; double lines with short transversal lines lead from the holes to these lines;  $8.5 \times 3.1$  cm.

Two *arrow straighteners* of antler are of the common type (Pt. Atkinson Pl. 2.4); one is decorated with three longitudinal lines.

The *arrow heads* are numerous, but do not vary much. They all have a distinct, conical tang; round this most of them have a decided roll, whereas others have two knobs, always at the same height, whereas others have an entirely plain tang; none of them have any sign of a screw-thread or knobs at different heights. All the arrow heads have barbs; it is true that on two the barbs are lacking, but these specimens are so short and roughly made that they seem to have been formed out of longer, broken arrow heads.

The predominating type will be seen on Pl. 5.7 (P13.85): it is of antler, with one barb; this is the longest of them all; otherwise the length varies from  $9\frac{1}{2}$  to 21 cm. On the figured specimen will be seen an owner's mark near the barb, and at this same place are owner marks on three other arrow heads<sup>1)</sup>, whereas four of them have it in a place that is usual for the Western Eskimos<sup>2)</sup>, just in front of the tang,  $\nabla$  and  $=$ . Furthermore we find the owner's mark near the barb in the Malerualik find from King William's Land<sup>3)</sup>.

One arrow head differs from the main type in having two short, opposite barbs; the specimen is quite short, however, and the shape is possibly secondary.

Another main form, which however is not nearly so frequently met with as the former, differs from it in having had a separate stone blade lashed on or inserted in a slit, and in that they all have barbs, the number of which varies from one to three, while the length varies from 8.1 to 13.8 cm.

Some thin, round points with faint unilateral barbs (up to five) and evenly pointed base (like Pt. Atkinson Pl. 1.16) are scarcely arrow heads, but rather leister prongs. The length varies from 12 to 18 cm.

The *blunt bird-dart heads*, with club-shaped head cut in cru i

<sup>1)</sup> One figured: Mathiassen, Geogr. T. 1928, fig. 3.9.

<sup>2)</sup> Wissler 1916, fig. 26 c.

<sup>3)</sup> Mathiassen 1927, I, Pl. 82.6-7 and fig. 108.

form, and cleft at the base for the shaft, are also represented in the find<sup>1)</sup>; lengths 4.8 to 6.5 cm.

Pl. 6.2 (P13.256) is a *cutting board for arrow feathers*, of wood, with marks of cuts on both sides.

The arrow heads of stone have already been dealt with under the harpoon blades.

#### *Other hunting implements.*

A *bola ball* is formed of the severed root end of an antler, with a hole at the edge; otherwise it is unworked.

Of *fish hooks* there are four. Two are shanks, oval, arched pieces of bone, with two holes for the line at one end, and a small hole for the hook at the other. (Cf. Pt. Atkinson, Pl. 1.8 and 10); 5.8 and 7.8 cm long; one has a double row of holes on the outer side, the other only a single pair.

The other two fish hooks consist of a narrow shank of antler, thinner at the top, where there are two holes for the line, while at the bottom there is a hole for the bone hook; 9.0 and 7.4 cm long. The longest is shown on Pl. 5.13 (P13.198)<sup>2)</sup>. It seems to be a local form.

A fragment appears to be of a *sinker*, of reddish-brown slate similar to those from Pt. Atkinson, figured Pl. 4.5. This identification is not certain, however.

A flat, 18 cm stick of antler, with a hole at one end and a slanting barb of bone, 3.5 cm long, is possibly the *side prong of a salmon spear*.

A fragment seems to be of the blade of an *ice scoop* of antler, with no shaft.

#### *Umiak (Skin boat).*

Pl. 6.6 (P13.203) is presumably a *crutch for the steering oar* of an umiak; it is of whale bone and at the bottom ends in a wide pivot with a hole; one branch is defective.

#### *Snow knives.*

Pl. 6.1 (P13.206) is a snow knife, formed of a whale bone, thick, very curved, with unilateral knob and a hole in the back end, very marked shoulder on the inner side and a wide blade. To other specimens are of the same material, shape and size<sup>3)</sup>; one has a hole in the back at the base of the blade. This is the same form of snow knife that was found at Pt. Atkinson, except that it is thicker and wider; but these broad snow knives with a shoulder are not known from more westerly parts.

<sup>1)</sup> One figured: Mathiassen, Geogr. T. 1928, fig. 3.3.

<sup>2)</sup> The other fig. 1. c., fig. 3.4.

<sup>3)</sup> One figured: 1. c., fig. 3.10.







*Men's knives.*

Some of the *knife handles* have blade sockets at the end, others at the side. Under the former group come two slender handles, both of antler, with a suspension hole; one is rather curved, the other straight, with the crust cut away on the rearmost half; both are about 18 cm long.

Pl. 5.<sup>15</sup> (P13. 216) is a short handle of antler, with sockets in both ends; in one of these is a small, polished blade of jade with chisel edge. Another specimen, likewise of antler, has a suspension hole in the rear end and in the fore end a small, sharp flint blade with chisel edge; it is 12 cm long.

The other main type of knife handles, for whittling knives, has the blade socket in the side near the fore end. A typical specimen will be seen on fig. 5.<sup>10</sup> (P13. 220); it is of antler, with bent fore end and has quite a small blade socket in the edge; the specimen has been used for fire-drilling or something similar, as there are a number of drill holes in the soft tissue.

A number of specimens, 12 to 20 cm long, are of the same type, with narrow, bent fore end, where there is a very small blade socket<sup>1)</sup>; only one of them has a suspension hole. This seems to be an earlier, local variant of the "crooked knife" that is so well-known from the Western Eskimos.

Finally, as a third type we have the knife handle that is composed of two longitudinal pieces lashed together. A specimen of this type, of whale bone, 10.3 cm long, is exactly like a specimen from Naujan<sup>2)</sup> (Central Eskimo Thule Culture).

*Slate blades for knives* are among the commonest objects in the Barter Island find; it contains no less than 64 blades (and fragments) of two-edged knives and 37 of single edged knives; they are all polished.

The most numerous are the slender, pointed, two-edged blades, of the same types as those from Pt. Atkinson (Pl. 3.<sup>10-11</sup> and <sup>14</sup>). Pl. 6.<sup>4</sup> (P13. 568) differs in that it has a wide, rounded blade. The length of the complete specimens varies from 7 to 18 cm.

Of the single edged blades Pl. 6.<sup>3</sup> (P13. 627) has apparently been used without any handle; it is rather thick and crude. A number of other blades have scarcely been hafted with bone or wood; they have a straight back and curved edge and a distinct hand-grip; one is pointed, two are broad, blunt; the length of the complete specimens is about 17 cm. Most of these single edged slate blades, however, have

<sup>1)</sup> One figured: Mathiassen, Geogr. T. 1928, fig. 3. 11.

<sup>2)</sup> Mathiassen 1927, I, Pl. 22. 1. Fig.: Mathiassen, Geogr. T. 1928, fig. 3. 15.



had the tang inserted in a separate handle; this is for instance true of Pl. 6.5 (P13. 628), one of the few complete specimens.

Pl. 5.9 (P13. 64) is the handle and part of the blade of a *bone knife*, doubtless of a thick bear bone; the edges are sharp. It has possibly been used as a dagger<sup>1</sup>).

Fig. 3 (P13. 663) is a peculiar little slate implement, with a very sharp, carefully formed two-edged blade; the point seems to be too flat to be used as a drill-bit, as the form of the specimen might otherwise suggest; possibly it is for a kind of knife. A similar blade in the Point Barrow collection is stated to be a "doctor's knife" for cutting boils and other sick parts.



#### *Other men's tools.*

Two *whetstones* are of slate, rather irregular in shape; Fig. 3. 1:2. another, also of slate, is flat, rectangular, with rounded corners, quite small,  $5.2 \times 1.4$  cm, with whetting marks on the edges.

Of the *adze heads of bone*, some belong to the type that predominated at Pt. Atkinson, with no hole through the neck but with a sunk belt for lashing on the shaft. One has two, another six horizontal holes through the neck, which on these is rather narrow; a third adze head has a fairly wide neck with four vertical holes. The material is mostly whale bone, but in a few cases antler or ivory. The length is 10 to  $13\frac{1}{2}$  cm. The blade socket on them all is so big that they must have had stone blades.

An *adze handle* of antler is  $27\frac{1}{2}$  cm long, rather curved, with a face at the front for the blade, which has formed almost a right angle with the fore part of the handle.

A number of *adze blades* have not been inserted in bone heads but lashed direct on the shaft. They are all unsymmetrical and thus, like the usual Eskimo axes, have been hafted as adzes. Pl. 6.13 (P13. 657) is an adze blade of fine argillaceous slate, four-sided, with a narrow neck, polished only at the edge. Two flat adze blades of the same slate, likewise four-sided, polished only at the edge, have parallel sides and are fairly broad, measuring  $11.7 \times 6.8$  and  $9.9 \times 5.8$  cm respectively. Fig. 4 (P13. 656) is a slender adze blade of slate with sharp pointed neck and, in contrast to the foregoing, oval in section and polished over its whole surface. Finally, there is a slender, flat, irregular adze blade of quartzite with a narrow neck and wider, rounded, slightly polished edge,  $0.183 \times 0.053$  m.

There are *wedges* in the collection, of whale bone and antler, dif-

<sup>1</sup>) Cf. Murdoch, fig. 174—75.



fering greatly in size; two have a hole in the side edge, presumably for a thong to prevent the wedge from jumping away while being hammered<sup>1</sup>).

Two blades for *mattocks* are as usual of whale rib and in the sides towards the rear have three pairs of notches; they are 23 to 25 cm long.

A *hand-drill shank* is of antler, round, 6.5 cm long, thickest (2.4 cm) at the rear end; in the fore end is a round socket, about 2 cm deep.

The collection contains *drill bits* of bone and of stone. A bone bit, 6.1 cm long, has a wide shank and a thin point and is apparently for a bow drill; another is bigger, 12.4 cm long, with wedge-shaped edge and rather narrow butt end. The stone bits taper evenly towards the point. Pl. 5.17 (P13. 453), of reddish-brown silicious slate, is polished; two others, of flint and black silicious slate, are a little longer, unpolished.

#### *Ulos.*

Pl. 5.16 (P13. 247) is an *ulo handle* of whale bone, of an old type well known from the Thule Culture; the rather wide blade socket has been formed by drilling. Two others differ in that the back is not so curved<sup>2</sup>).

Another *ulo handle*, of another old type, is of whale bone, 10.0 × 4.9 cm, trapeziform, with a long, thick back which runs smoothly into the narrower blade-side with the rather narrow socket.

Two other *ulo handles* are of ivory, smaller and apparently of later date, although from the width of the blade socket they seem to have had stone blades too. Pl. 5.14 (P13. 251) is rounded and has a large hole in the back, from which double lines radiate. Another specimen is smaller, segment-shaped, decorated with a curved line, from which run several whale tails<sup>3</sup>).

Of *ulo blades* of slate there are no fewer than 71, but most of them are broken. The length of the complete specimens varies from 7 to 15 cm; they are all polished. The shape does not vary much; the trapeziform with curved edge and narrow, straight back is commonest; on others the back is long, straight; one has two notches at the ends, probably to hold a whipping round the handle; one has a hole near the handle and, as on Pl. 3.23, this has been cut out.



Fig. 4. 1:2.

<sup>1</sup>) Cf. Mathiassen 1927, I, p. 317, from Malerualik.

<sup>2</sup>) One figured: Mathiassen, Geogr. T. 1918, fig. 3. 2.

<sup>3</sup>) Hoffman, fig. 154, p. 937.

*Other women's tools.*

A *baleen shave* is of antler, 11.2 cm long, curved, with a hole in one end and a blade socket,  $2\frac{1}{2}$  cm long and rather narrow, in the edge.

Pl. 5. 18 (P13. 255) is a *scraper* with a handle of antler, bent over at right angles to the blade (in contrast to the specimens from Pt. Atkinson, Pl. 4. 6) and ornamented, and a flint blade with convex edge; a number of other blades are of similar scrapers, all with convex edges and shorter or longer tang.

A *needle case* is made of a tube of rather thick fibula, 12.8 cm long, now fractured; inside it is a strip of sealskin rolled and sewed lengthwise, in which are inserted a number (at least ten) of small sewing needles of copper with eyes, mostly elongated; from the appearance the specimen would seem to have been found more or less on the surface.

A number of pointed bone sticks have probably been used as *bodkins*, although nothing certain can be said of them.

Two broken points of ivory have presumably been the upturned arms of *anchor-shaped thimble holders*; they are both among the few ornamented objects in this find, having lines with short transversal or oblique lines.

*Household utensils.*

A flat, slightly curved piece of soapstone, with two holes in each end,  $17.9 \times 6.5$  cm, seems to be of a *cooking pot*.

*Articles of clothing and adornment.*

A fragment is of a pair of *snow goggles* like the specimen from Pt. Atkinson, but with a hollow for the nose in one edge only.

A *comb* is of ivory, rather small ( $5.2 \times 2.5$  cm). The upper edge of the handle forms an angle, in the point of which there is a hole; along this edge and just over the teeth the handle is decorated with double lines with short transversal lines; it has six teeth. Another comb is small, narrow, with a hole in the undecorated handle and with three teeth.

Two *tooth beads* are of a dog's canine tooth and of a narwhal or white whale tusk. A broken bear tooth with a hole looks very new.

The collection contains 31 *labrets*; most of these, 24, are of mammoth tusk, which seems to be a favourite material for this purpose; four are of walrus ivory, two of bone and one of coal. On Pl. 6 are the most important types: 7 (P13. 284) is a novice's labret of ivory, rather small, conical; there are 12 specimens of this type, some of which are a good deal smaller and thinner than the one figured.

<sup>8</sup> (P13. 290) is long and narrow, of mammoth tusk, whilst <sup>10</sup> (P13. 309), which is otherwise of similar shape but shorter, is of coal. <sup>9</sup> (P13. 289) is heavier, oval in section, of mammoth tusk — a type that is also fairly common (nine specimens); one is 5.6 cm long.

### *Toys, etc.*

The handle of a *toy adze* is of wood, 0.071 m long, with three holes in the fore end for the blade. The use of Pl. 6. <sup>11</sup> (P13. 321) is uncertain; it is of ivory, decorated with pairs of oblique lines, and on one edge a line with oblique lines to both sides. Among the other objects the use of which is uncertain there is a flat, circular disk of micaceous slate, 9 cm in diameter, and a piece of rock crystal.

### **General Remarks.**

Apart from a very few specimens, the find from Barter Island gives the impression of being very homogeneous, both with regard to the state of preservation and patina and the types of the implements themselves. In reality, it is astonishing in a find that comprises almost a thousand objects to see so few types and such little variation among them. This would seem to indicate that the find dates from a very limited period, and thus must be presumed to provide an illustration of the culture on this part of the north coast of Alaska at a very definite time. How far back this period lies is another question. The find must be from the time prior to the arrival of Europeans to this region, as it contains nothing at all of European origin or that could be due to European influence. Not only does this take us back to the time before Franklin's discovery of this island in 1826, but presumably before the Russian colonization of the regions round the Bering Strait, as even then there was a possibility for trade with beads and other things north about Alaska. That there are a few objects that look much more recent in the find, apparently found on the surface, is not remarkable, as Franklin found the island inhabited in 1826, when it was an important trading centre. That the Barter Island find is not quite new is also to be seen from the types of the implements: not only the numerous stone objects but also many of those of bone, such as the harpoon foreshaft, the bladder-dart heads, the broad snow knives and the large ulo handles, are old types that have long gone out of use but are known from the Thule Culture.

Thus whilst the Barter Island find presumably dates from the period before the colonization of Alaska, it is on the other hand scarcely very old. We have got far away from the Thule Culture. Only one

harpoon head is of the Thule type, and this one looks older than the majority of the objects in the find. It is true that there are some of the implement types that go back to the Thule Culture, such as those referred to above and several others such as the arrow heads, knife handles with end blade, wound pins, knife blades of slate, adze heads, wedges and mattocks. The harpoon heads, however, have closed sockets, and the scrapers and the labrets show us that we have advanced a little way in time. As an approximate valuation of the age of the find I would say 16th or 17th century <sup>1</sup>).

If we compare this find with the Point Atkinson collection, we will see that, of the types in the latter that point eastwards, two of them, the scraper with the handle bent over in the plane of the blade and the slate pendants, are missing from the former; a third of the types: the snow knife with one shoulder, is still there, but we are at its western boundary; it is not known from Point Barrow. On the other hand, this find seems to form the eastern boundary for a few later Alaska types: the scraper handle bent over at right angles to the blade, the harpoon head type Pl. 5. 2, and the small segment-shaped ulo handles.

There are also localisms, although fewer than at Point Atkinson: the fish hooks with the characteristic shoulder on the shank, and the whittling knife with the very small blade socket. But otherwise the find shares some of its characteristic features, such as the harpoon socket pieces with round swelling at the top, the long bladder-dart heads and the arrow heads with the roll round the tang and with owner mark in front of the barb, with old finds from the Pt. Barrow region.

<sup>1</sup>) In this I agree to some extent with Jenness, who in a letter to me puts his find from Barter Island at 300 to 400 years old.



## IV. The Point Barrow Collection.

Point Barrow, the most northerly point of Alaska, has from early times been an important Eskimo settlement and it is still. The Point Barrow Eskimos are through Murdoch's monograph the best known Eskimo tribe in Alaska, and in that work a considerable number of old objects, found in the ground, are figured. Some are also reproduced here and there in Nelson's, Hoffman's and Mason's works, whilst others are figured in Ray's publication. In addition there is a very large archaeological material from Point Barrow and adjacent localities (Cape Smythe, Birnirk), as for instance V. Stefánsson's large collections in the American Museum of Natural History in New York and in the National Museum of Canada in Ottawa, and the considerable Van Valin collection in the University Museum at Philadelphia. These collections, however, suffer from this disadvantage that none of them were excavated in a scientific, systematic manner, and furthermore, only a very small part of them has been published, i. e. only the harpoon and lance heads in Stefánsson's collection in Wissler's paper, so often cited in the foregoing. In an earlier work I have illustrated two needle cases from Stefánsson's collection at Ottawa<sup>1</sup>). On the Van Valin collection Dr. J. Alden Mason has given a brief report<sup>2</sup>) and also more fully described the throwing board in that collection<sup>3</sup>).

Knud Rasmussen's collection from Point Barrow comprises 537 objects, for the most part handsome, complete specimens which he acquired by purchase from the well-known trader Mr. Charles Brower, "the king of Point Barrow". The collection originates from old house ruins and graves round about Pt. Barrow, but the various specimens have no other indication of locality; thus there may very well be objects from C. Smythe and Birnirk as well as from Pt. Barrow itself. The collection gives no impression of homogeneity, new and old being mixed up together. Thus it cannot be used as a basis for chronological

<sup>1</sup>) Mathiassen 1927, II, p. 95, fig. 4.

<sup>2</sup>) Excavation of Thule Ruins at Point Barrow, 23rd Congress of Americanists, New York 1928.

<sup>3</sup>) Some unusual spear-throwers from Ancient America, The Museum Journal, Philadelphia 1928.

conclusions, nor can it provide any picture of the state of culture at Pt. Barrow in any particular period, as was the case with the Barter Island and, to some extent, the Pt. Atkinson finds.

Under these circumstances it would be unreasonable and cause superfluous repetitions to describe the whole of the collection in detail. Only new types, or new variants of well known types, as well as especially handsome specimens of already known forms, will be described and illustrated. Reference will also be made to the illustrations in the aforementioned publications or to the figures from Pt. Atkinson and Barter Island.

In some cases where the use of the objects is not directly obvious, use will be made of the information about them which Knud Rasmussen acquired on the spot of the present-day Eskimos.

#### *Harpoon heads.*

There is only one harpoon head of the *Thule type*<sup>1)</sup>, a fine but rather defective specimen of Type 2, of antler, 12.0 cm long, with two opposite barbs (one of which is broken off), two pairs of holes for the lashing round the open shaft socket and, in front of the line hole, the Y-ornament that is so well known from the Central Eskimo Thule harpoon heads; it is of the same type that we have from Pt. Atkinson (Pl. 1.1) and previously known from Pt. Barrow<sup>2)</sup>.

A type that is very close to the Thule types, but differing in having the spur bifurcated or trifurcated, occurs more frequently in the collection; they all have grooves for the lashing round the shaft socket and never have the ornament of the Thule types, but on the contrary often have longitudinal or oblique lines, and they frequently have side-blades of flint. It is the type that I will call the *Birnirk Type*, after the locality where it was first found predominating. It has previously been illustrated from Pt. Barrow by Murdoch<sup>3)</sup> and O. T. Mason<sup>4)</sup>, but has been described in detail by Wissler<sup>5)</sup>, this type being prevalent in Stefánsson's collection from Birnirk, and it also occurs from C. Smythe and Pt. Barrow itself; finally, this type is predominant in the Van Valin collection at Philadelphia<sup>6)</sup>.

Of these Birnirk harpoon heads this collection contains eight. Three of these are of the type without barbs but with the blade slit parallel with the line hole; one of these has sockets for side blades. Three belong to the type with one barb, with no special end blade but with a socket for a blade in the side opposite to the barb; one of these

<sup>1)</sup> Figured: Mathiassen, Geogr. T. 1928, fig. 4. 2.

<sup>2)</sup> Murdoch, fig. 209 a; O. T. Mason 1902, fig. 76.

<sup>3)</sup> Murdoch, fig. 210.

<sup>4)</sup> I. c., figg. 72—73.

<sup>5)</sup> 1916, figg. 3—4.

<sup>6)</sup> J. A. Mason, Amer. Congr. 1928.

is shown on Pl. 7.2 (P15. 377)<sup>1)</sup>; it is of antler, with side blade of flint and a lashing of vegetable fibres.

Pl. 7.1 (P15. 70) is a harpoon head of this type, but it differs from the usual form by the fact that the fore end is thin in the plane of the line hole, in which plane the two side blades are also set; it is of antler, decorated with several oblique lines and, with its fine brown patina, gives the impression of being very old.

With regard to the age of these Birnirk harpoon heads, I have previously<sup>2)</sup> said that they must be later than the Thule harpoon heads, in which I am supported by the following arguments: 1) That the Birnirk types have a very narrow geographical distribution, as they are only known from Pt. Barrow to East Siberia, whereas the Thule types predominate everywhere in old finds from East Siberia to Greenland. 2) That the Birnirk types are almost predominant in the Van Valin collection, which otherwise contains hardly anything else than implements of the Thule types, and also in the Birnirk collection, which forms a transition from the Van Valin stage to the later Pt. Barrow culture, whereas the Thule harpoon heads do not occur in any of these collections and thus must presumably be earlier than these. 3) That judging by their shape the Birnirk types seem to have been derived from the Thule harpoon heads and presumably have appeared as the result of the influence of the Thule types from the Bering Sea Culture, and that this influence must have been brought to bear after the Thule Culture had spread from Alaska to the east.

The greater part of the harpoon heads in the collection are, however, of the *later, thin forms with closed shaft socket*, and here again, as at Pt. Atkinson and Barter Island, it is the type with the *blade parallel to the line hole* that predominates<sup>3)</sup>.

Pl. 7.3 (P15. 158) is a harpoon head of this type; it is of ivory and has a faceted blade of caribou leg bone fastened by two lashings of sinew thread through the line hole; round the shaft socket are two reinforcing lashings. Another harpoon head has a bone blade with barbs, exactly like Wissler fig. 10 a. A third<sup>4)</sup>, handsomely worked, is of ivory with a slate blade and on both sides of the line hole has the same characteristic ornament as Murdoch fig. 217, an ornament that is peculiar to North Alaska (is also known from Pt. Hope), as it is not known east of Pt. Barrow and, what is more, it is not especially old, it not being known on harpoon heads of the Thule and

<sup>1)</sup> The specimens from Pt. Barrow have museum numbers P15.

<sup>2)</sup> Indian Notes 1929, Vol. VI, No. 1 p. 54.

<sup>3)</sup> Cf. Murdoch, figg. 206—7, 213, 215—21 and 223; Wissler figg. 8 and 10 a—b.

<sup>4)</sup> Figured: Mathiassen, Geogr. T. 1928, fig. 5.3.



Birnirk type. A fourth harpoon head of this type, rather small, has bifurcated spurs and an iron blade <sup>1)</sup>).

Of the corresponding type, but with the *blade at right angles to the line hole*, the collection contains only few; one is very similar to Wissler fig. 7 b but has no flint blade.

Of the thin harpoon heads with *barbs*, but with no separate blade, there are a few with both one <sup>2)</sup> and two pairs of opposite barbs <sup>3)</sup>. A fragment is of a harpoon head with two barbs and the blade at right angles to the line hole.

Pl. 7. <sub>1</sub> (P15.67) belongs to the *slightly flat* types; it is of antler and has a blade of faceted green jade, fastened in with a bone rivet. Of these rather flat harpoon heads without separate blade we have, besides, the types without barbs <sup>4)</sup>, with two opposite barbs <sup>5)</sup> and with two pairs of barbs <sup>6)</sup>, but only few specimens of each type. These types probably are among the most recent in Alaska.

We have several *whaling harpoon heads*, exactly like Murdoch figg. 234—36; one of them has the same ornamentation as fig. 234.

Of *harpoon blades* we have small, triangular, faceted, sometimes slightly hollow-ground, slate blades without holes, and also two blades for whaling harpoons. Pl. 8. <sub>3</sub> (P15. 202—14) is a box <sup>7)</sup>, in which lay twelve small slate harpoon blades; the box is carved out of wood in the form of a bird; the legs are indicated by small knobs, the eyes are small inlaid rings of ivory; on the right side is a small knob of ivory, from which a baleen cord has run round the underside and held the lid on, having been fastened to a similar knob on the other side, but this is now missing; the cavity is lined with down.

Pl. 8. <sub>2</sub> (P15. 104) is a handsomely polished blade for a whaling harpoon; at the base it is ground flat, at the front it has two facets meeting in a ridge in the middle. A fragment is of a large blade with three holes in the median line (the shape is like "Archaeology of the Central Eskimos" I, pl. 44. 2).

Of *bladder dart heads* we have a specimen of the earlier, heavy form with truncated conical base, two line holes and two opposite barbs (Murdoch fig. 201), and also some specimens of the more modern form, quite small flat heads with a broad, flat base and a single line hole, with or without double pairs of barbs <sup>8)</sup> (Murdoch, fig. 203, Wissler, fig. 24 g, 29 b and 30).

<sup>1)</sup> Cf. O. T. Mason 1902, fig. 67.

<sup>2)</sup> Murdoch, fig. 211; O. T. Mason 1902, fig. 75; Wissler, fig. 5.

<sup>3)</sup> Wissler, fig. 10 e.

<sup>4)</sup> Wissler, fig. 10 c.

<sup>5)</sup> O. T. Mason 1902, fig. 74.

<sup>6)</sup> Wissler, fig. 10 d.

<sup>7)</sup> Cf. Murdoch, fig. 251.

<sup>8)</sup> One figured: Mathiassen, Geogr. T. 1928, fig. 5. 6.







*Other objects connected with harpoons.*

*Foreshafts.* In this collection we have, firstly, the long slender foreshafts with single line hole (Wissler, fig. 44 a, b, f, g), which are an old type, known from the Thule Culture, and secondly, the modern, very short foreshafts (Murdoch, fig. 214 a). The former have lengths from 12.7 to 22 cm, some having the line hole near the middle, others near the rear end; one has a distinct tenon in the rear end. The latter have a length of 5.6 to 8.7 cm <sup>1)</sup>).

Finally, we have two foreshafts for whaling harpoons of the usual type (Murdoch, fig. 237), 36 and 49 cm long respectively; in contrast to the other harpoon foreshafts these have been fixed, being lashed on to the shaft.

*Socket pieces.* One specimen, with a very old appearance, is of antler, 24 cm long, cylindrical, but with a slight protuberance at one side at the fore end; here there is a socket for the foreshaft, and in the rear end is a socket, 10 cm deep, for the shaft.

The other socket pieces in the collection are of whale bone, with wedge-shaped base and swollen fore end. One specimen is quite like Barter Island Pl. 5.8 (and see Wissler, fig. 42 c), whereas others are thicker, more swollen at the front, and at the base have several holes drilled through them (Murdoch, fig. 214; Wissler, fig. 42 a).

Pl. 8.6 (P15.138) is a socket piece for a bladder dart of the later type <sup>2)</sup>, with quite a small point, flat at the base. It is of whale bone, rather flat, with an elongated socket at the fore end and a foursided, flat point at the rear, on which are two transversal ridges and it has a transversal hole through it; this tang very closely resembles those of arrow heads. Another similar socket piece differs in having a wedge-shaped base.

*Ice picks.* One is of antler, 30½ cm long, round, evenly tapered, with a conical, notched fore end <sup>3)</sup>. Others most closely resemble Wissler, fig. 40 a, the upper end being somewhat hollowed out to facilitate fastening on to the shaft; one has a hole with a bone rivet at this end; on these specimens the point is rather flat.

Pl. 7.6 (P15.531) is a *finger rest* for a harpoon, of ivory, of very simple, slanting form. Pl. 7.5 (P15.313) is more slender, likewise of ivory; the intention of the hole in the upper end is not clear. A third one is shorter, cruder; almost round.

Pl. 7.7 (P15.51) is stated to be for a *swivel* for the harpoon line, of ivory, with openings at both ends and decorated with drilled holes.

<sup>1)</sup> One fig. 1. c., fig. 5. 7.

<sup>2)</sup> Cf. Wissler, fig. 40 b—c.

<sup>3)</sup> Cf. Wissler, fig. 40 b—c.



Pl. 7. 8-9 (P15. 524 and 284) are two different types of *mouth-pieces for harpoon bladders*; one is short, cylindrical, with very pronounced flanges; the other is slender, flat on one side; both are of ivory.

*Other implements for marine hunting.*

Pl. 8. 1 (P15. 96) is stated to be "a long *lance head* for white whales, of horn, from very old ruin". It is of antler, slender, two-edged, conical at the base and, a little way up, a unilateral, elongated hole. This specimen is interesting as being the first known Western specimen of the lance with loose head, a type that is so well known in Greenland and among the Central Eskimos, although these have other forms. On the other hand it seems to closely approach a specimen from the Thule Culture <sup>1)</sup>, although it is a more primitive form than this.

Some *flint blades*, shaped like Murdoch, fig. 240, but much smaller (4 to 5 cm long) are presumably for smaller lances; one, 8.2 cm long, recalls the caribou lance blade Murdoch, fig. 246. Two slate blades with a pronounced tang, rather broad, must also be assumed to be for lances (Pl. 7. 21. P15. 172).

A *wooden shaft* is presumably for a small lance of this kind; it is 42 cm long, about 2 cm in diameter, oval in section; near the butt end, which tapers slightly, there are two notches in the edge; at the other end is a deep, wide blade slit, around which is a slightly sunk part with lashing notches. Two of the aforementioned flint blades are stated to have been found together with broken fore ends of shafts like this.

A *handle for a drag line*, of ivory, 4.1 cm long, is quite like Murdoch, fig. 257 e.

A *stone club-head* for killing wounded seals resembles Nelson Pl. LII. 1; it has the same ball form with a hole in a projection and the same speckled stone. Its greatest diameter is 6.8 cm. It is stated to have been used for hanging behind the sledge as an amulet.

A *seal indicator* resembles Murdoch, fig. 255 a, a thin, round stick of bone with one end slightly pointed and swollen, the other end cut obliquely, with lashing notches and two holes, one of which holds a tree-nail; 33 cm long.

Pl. 7. 10 (P15. 530), a curved, flat piece of antler, is stated to be "an implement for holding a rattle of sticks of ivory, which rattle when the seal enters the net at the ice-edge, thus waking the man on watch when he sleeps".

A *throwing board*, which looks rather new, is for a left-handed man, but otherwise differs in no way from the well known type from Point Barrow (Murdoch, fig. 205 a).

<sup>1)</sup> Mathiassen 1927, I, fig. 49.







### Archery.

Pl. 7. 15 (P15. 160) is a loose cap for the end of a *bow*; in one end is a knob for the string, in the other a deep socket for the stave.

Two *sinew twisters* for the sinew backing of the bow are of the usual form (Murdoch, fig. 286), of ivory, one without holes, the other with two holes at one end.

Of *marline spikes* the collection contains the usual form (Murdoch, fig. 284) of ivory, and also Pl. 9. 4 (P15. 148), which is longer, curved, of walrus rib.

The collection includes four *arrows* with the wooden shafts preserved, apparently taken from graves. They all have bone heads, mostly of ivory, with conical tang, and wooden shafts, round at the fore end, flat at the feather end, with a nock. Three specimens are of the same length, about 68 cm; the third one is broken at the feather end. One of them has no barbs, but a rather short, wide, symmetrical blade<sup>1)</sup>; one has one barb<sup>2)</sup>, one has one barb and an inserted slate blade (Fig. 5. P15. 373), and one has four unilateral barbs and a blade slit at right angles to the plane of the barbs.

The loose arrow heads all have a conical tang, mostly with two opposite knobs, in other cases with a roll round it, and, more rarely, quite plain. In most cases the material is antler; all have barbs, mostly one or two. Pl. 9. 1 (P15. 463), of antler, is the commonest type; this specimen, however, has an owner's mark in front of the barb (Cf. Barter Island Pl. 5. 7), whereas this usually is lower down<sup>3)</sup>. Pl. 9. 2 (P15. 393) has unusually long barbs. Other arrow heads have up to five unilateral barbs, others again bilateral barbs like Wissler, fig. 26 a and c. There are heads with inserted blades with one<sup>4)</sup> and with two<sup>5)</sup> barbs, and finally we have Pl. 9. 3 (P15. 394), of antler, with three barbs on one side, one on the other, and a nicely made flint blade.

Of *blunt bird arrow heads* we have the club-shaped, rugged type<sup>6)</sup> (Pl. 7. 13. P15. 467), some with a tang and some with flanges, others with shaft socket, and we also have the smaller, cylindrical form with rounded point<sup>7)</sup> Pl. 7. 14 (P15. 283).

Of *stone arrow heads* the collection contains long, slender flint blades like Barter Island Pl. 5. 11 (Murdoch, fig. 183), and



Fig. 5  
1:4.

<sup>1)</sup> See Wissler, fig. 26 d. <sup>2)</sup> Wissler, fig. 24 c. <sup>3)</sup> Wissler, fig. 26 c. <sup>4)</sup> Wissler, fig. 27 a and c—d. <sup>5)</sup> Wissler, figg. 24 a and 27 b. <sup>6)</sup> Wissler, fig. 33. <sup>7)</sup> Wissler, fig. 26 b.



smaller flint blades with or without a pronounced tang, like Pl. 7. 16-17 (P15. 41 and 21). Two polished slate blades are about 7 cm long with wide, not very distinct tangs; one, which is still smaller, is shown on Pl. 11. 13 (P15. 128).

A *quiver* of gut skin, exactly like Murdoch, fig. 190 c, is 55 cm long.

Pl. 8. 1 (P15. 119) is an *arrow straightener* of antler with a square hole in the wide, bent-over end.

Pl. 7. 11-12 (P15. 185 and 157) are two *bracers*<sup>1)</sup> of antler, thin, very curved; the first is decorated with two caribou, one of them (the buck) with well-developed antlers; the other has open work.

Pl. 9. 6 (P15. 514) is stated to be a *kuvdlun*, an implement for splitting feathers for arrows<sup>2)</sup>; it is of bone and has a sharp, rounded edge. Pl. 9. 5 (P15. 81) is given as being an implement for fastening feathers to arrows; its flat point would indicate that in reality it is the same implement as the foregoing. It is of ivory and, with its shaft socket, line hole and remains of two pairs of barbs, seems to have been made out of a harpoon head.

#### *Wolf-killer.*

A strip of baleen, with points turning to opposite sides exactly like Murdoch, fig. 258, is 26 cm long but folded over four times and tied with sinew thread.

#### *Bird hunting.*

Pl. 9. 7 (P15. 397 c) is a carefully made point of ivory, stated to be the side prong of a *bird dart*, as its form with the obliquely cut base and the slot-like hole might well indicate<sup>3)</sup>; it was found together with two similar points, 16.4 and 11.3 cm long, the smallest of which has not the small barbs on the side. A fourth point has three barbs on the inner side like Murdoch, fig. 199.

Pl. 7. 20 (P15. 441) is a *bola ball* which, with its crude form and mode of manufacture — by cutting a rib — recalls the bola balls of the Thule Culture<sup>4)</sup>, whereas Pl. 7. 18-19 (P15. 445 and 264) represent the more rounded, more carefully made bola balls otherwise used by the Alaska Eskimos<sup>5)</sup>.

Pl. 7. 22 (P15. 177) is a flat needle of antler which looks fairly new. It is indicated as being a "kaputaq, for piercing a wing when birds are to be carried", that is to say an implement similar to the trout needle of the Central Eskimos, but used for birds.

<sup>1)</sup> Murdoch, figg. 193—194.

<sup>2)</sup> Cf. Murdoch, fig. 287, "feather setter".

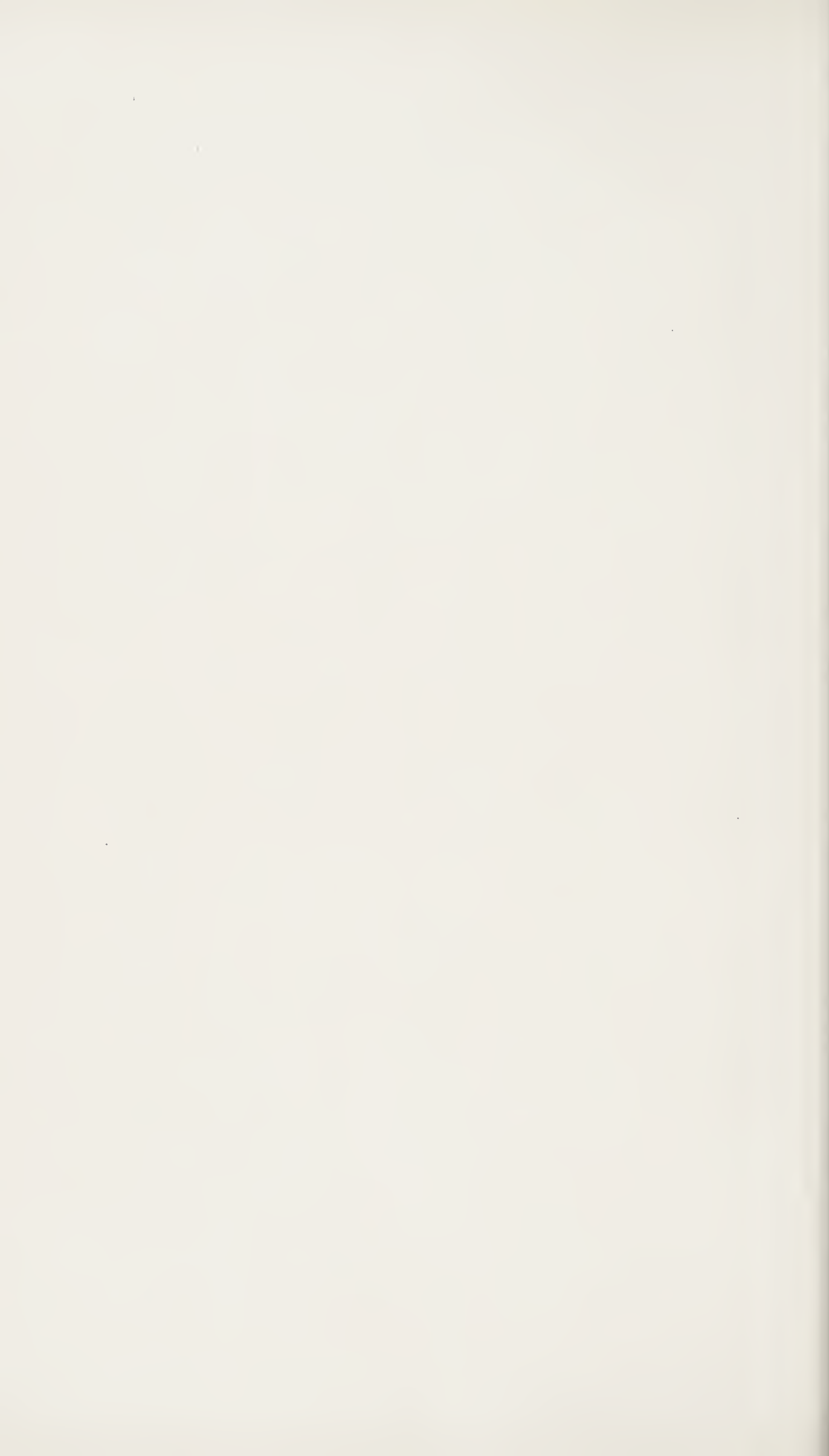
<sup>3)</sup> Cf. Wissler, fig. 24 j.

<sup>4)</sup> Cf. Mathiassen 1927, I, Pl. 11.

<sup>5)</sup> Murdoch, figg. 247—48.







A number of long strips of baleen are furnished with numerous short loops, likewise of baleen, about 15 cm long and at a mutual distance of 15 to 20 cm; they are stated to be *snares* for eider ducks and geese.

### *Fishing.*

The three-pronged *salmon spear* is known at Point Barrow, as Murdoch's fig. 278 shows. That the earlier form of barb with prominent neck, which is so characteristic of the Central Eskimo Thule finds<sup>1)</sup>, has been used here too will be seen from Pl. 9. 10-11 (P15. 344 and 330), both of ivory and rather small.

A *toy leister* for very small fish, apparently from a grave find, has a wooden shaft, roughly made, 66 cm long, and three bone prongs, which are set out from each other and lashed with baleen cord; the central prong has bilateral, the others unilateral barbs.

Two *fish hooks* are of the type Murdoch, figg. 266—67; one is ornamented with a longitudinal row of holes. Pl. 8. 5 (P15. 537) is a round *sinker* of stone, tied on to baleen cord; in one end is a small piece of bone with holes; in these are fastened a suspension cord and two shorter baleen cords to which are fastened small fish hooks; the latter, however, are only represented by the shanks of bone, the hooks themselves being missing.

Another sinker for a fish hook consists of a piece of ivory with three holes; through two of them, at right angles to each other, run baleen cords which hold a semi-spherical piece of pyrites; the third has been for the line; total length 3.7 cm.

Of implements for *fishing nets* there is a *netting needle* like Murdoch, fig. 315, 0.19 m long, and some *mesh gauges*<sup>2)</sup> like Murdoch, figg. 316 and 320 b—c. Two specimens seem to belong to Murdoch's type "*netting weights*" (Murdoch, fig. 321); one is of whale bone, 10.6 cm long, thin, with two pectoral fins, anal fin and two dorsal fins indicated and a hole in the back; another is of ivory, very curved, 9.0 cm long. These specimens by the way recall the fish decoy of the Central Eskimos. A *net float* is of wood and in its form recalls Nelson, fig. 52, but at the top is slightly domed and has a median groove; it is 8.7 cm long.

### *Means of conveyance.*

Fig. 6 (P15. 223) is a piece of a *toboggan* of baleen like Murdoch, fig. 359; at the ends of the cross strips there are loops of baleen cord or sealskin. Probably it is only a toy.

Pl. 9. 14 (P15. 334) is a wooden stick, square with rounded corners

<sup>1)</sup> See Mathiassen 1927, I, Pl. 12. 10-11.

<sup>2)</sup> One figured: Mathiassen, Geogr. T. 1928, fig. 5. 23.





Fig. 6. 1:3.

in section, stated to be a nagto-raq, a *toggle* for the end of a sledge trace<sup>1)</sup>.

These two objects are the only evidence of dog traction in the find; there is not a single piece of sledge shoe or other evidence in this collection, no more than in the foregoing or the following collection, that sledges with runners have been known.

Pl. 9. 12 (P15. 183), of antler with notched edges, is stated to be an agssagâgkutaq, a *crutch for a harpoon* on the deck of a kayak. Pl. 8. 15 (P15. 222), of baleen, is stated to have been used for the same purpose, but its placing on the kayak is not clear. Two small crutches to place on the kayak deck are shaped like a mitten<sup>2)</sup> like Nelson, Pl. LXXVIII. 12.

Pl. 8. 7 (P15. 127) is stated to be an *umiak cleaner*, sikuriaut, for clearing the ice from the umiak; it is of whale bone and has a chisel edge, whereas the narrow end has been lashed to a handle.

Two *bailers* for the umiak, of the same shape as Murdoch fig. 346, are of wood, 43 and 25 cm long respectively. A small bone spoon, 0.165 m long, with a wider and flatter blade, is indicated as being a salúngmaut, for cleaning out the inside of the umiak.

<sup>1)</sup> See Murdoch, p. 358.

<sup>2)</sup> One figured: Mathiassen, Geogr. T. 1928, fig. 5. 17.







*Snow knives.*

Pl. 8.<sup>10</sup> (P15. 501) is an old snow knife of a type that is otherwise not known from Alaska; it is of whale bone with unilateral handle knob, but differs from the snow knives of the Thule Culture in having no shoulder. Pl. 8.<sup>11</sup> (P15. 224) is apparently later, of antler, slender, and has had a lashing of baleen round the handle; the rather hollowed blade seems to be less well adapted for the purpose. A third snow knife, of whale bone, is like Murdoch, fig. 305.

*Men's knives.*

On Pl. 10 will be seen the most important types of men's knives in the collection. <sup>1</sup> (P15. 146) is an old knife with two-edged slate blade set rather crookedly, and a handle of antler, whipped with thin seal thong which runs through a longitudinal row of holes. A number of handles have apparently belonged to similar two-edged knives, as for instance <sup>2</sup> (P15. 55), of antler, with a blade socket in the fore end and a long tang at the rear end for lashing to a lengthening piece; the handle has presumably belonged to a long two-handed flensing knife<sup>1</sup>). <sup>3</sup> and <sup>6</sup> (P15. 30 and 286) are also of this kind; the former is of antler and has a suspension hole bored through the handle where it is widest, a feature that is fairly common in these knives. <sup>5</sup> (P15. 129) has the same characteristic row of holes, in this case for a whipping of baleen; one knife has two such rows<sup>2</sup>). One of the knives is like Murdoch, fig. 99 b, although the wooden handle now has no whipping, and the faceted, two-edged slate blade is somewhat broader. A number of two-edged slate blades like Murdoch, fig. 100 belong to such knives; the same thing may be said of two symmetrical, slender flint blades and a copper blade, lanceolate, 17.2 × 3.2 cm, with narrow tang. A slate blade, which resembles Barter Island fig. 3, is stated to be a "healing knife" for lancing boils and other sick parts.

Another main type is the "crooked knife" so well known from the Western Eskimos. Pl. 10.<sup>7</sup> (P15. 156) is of earlier type, in which the handle is still straight<sup>3</sup>); it is of antler and has a long blade slit in one edge. Another handle of this type is only 12 cm long and has a suspension hole. The others are of the more modern, curved forms; one is exactly like Murdoch, fig. 114, one has the handle whipped with

<sup>1</sup>) Cf. Matthiassen 1927, I, pl. 83. <sup>2</sup> from Malerualik.

<sup>2</sup>) Fig.: Mathiassen, Geogr. T. 1928, fig. 5. 11.

<sup>3</sup>) Murdoch, fig. 117.



baleen cord, and one, with its short, round hand-grip and small blade socket resembles specimens from Barter Island<sup>1)</sup>.

The collection contains single-edged slate blades like Murdoch, fig. 107.

Pl. 10.4 (P15. 57) is a knife handle formed by lashing together two longitudinal pieces; it is of antler and has a blade in each end. Another specimen is quite like Murdoch's "antler chisel"<sup>2)</sup>; the two halves of the handle are pinned together; the blade is rhomboid, of iron.



Fig. 7. Pl. Barrow. 1:3.

In the collection are some large *bone knives*, the use of which is not wholly certain. Pl. 8.8 (P15. 132) is a powerful, two-edged, pointed knife of antler, the blade of which seems to be too hollow for it to have been used as a snow knife. Presumably it is a *hunting knife* or dagger such as Murdoch, figg. 174—75; it resembles to some extent the pointed bone knives of the Thule Culture<sup>3)</sup>.

Pl. 8.9 (P15. 500) is stated to be a sermijaut, ice scraper; it is a hollow, curved knife of antler which, however, very closely resembles the *knives for squeezing out water* that are used by present day Central Eskimos<sup>4)</sup> and known from the Thule Culture<sup>5)</sup>. As caribou hunting with the kayak is also known to the Point Barrow Eskimos<sup>6)</sup>, it is probable that this implement has been used there just the same as further east, even if this use has passed into oblivion.

Fig. 7 (P15. 297) is the cut-off blade of a curved, slightly hollow knife of antler, decorated with etched caribou, three bucks and two does (with no antlers).

#### *Other men's tools.*

Of *adzes* we have bone heads, stone blades, and shafts. Pl. 8.14 (P15. 166) is an adze head of antler of the rather primitive form without holes, but with the neck covered with notches; a blade of polished black jade or silicious slate, the two sides of which meet almost at right angles. Pl. 8.13 (P15. 362) is of whale bone with wide neck and two horizontal holes; the blade socket is wide, for a stone blade. A

<sup>1)</sup> Especially Mathiassen, Geogr. T. 1928, fig. 3.11.

<sup>2)</sup> Murdoch, fig. 143.

<sup>3)</sup> Cf. Mathiassen 1927, I, Pl. 13.15 and 18.

<sup>4)</sup> Mathiassen, Iglulik Esk., fig. 32.

<sup>5)</sup> Mathiassen 1927, I, Pl. 13.11 and 18.

<sup>6)</sup> Murdoch, p. 265.



third head, of whale bone, is with its two pairs of vertical holes like Murdoch, fig. 135.

Pl. 9. 9 (P15.348) is a small blade which has been set in a head of this kind; it is of faceted green jade, and the sides meet at almost a right angle. Other stone blades, however, have not been inserted in any bone head but lashed direct on to the shaft<sup>1</sup>). Pl. 8. 12 (P15. 112) is a fine example of one of these adze blades of green polished jade, with three transversal grooves on one side for the lashing; the form is rather irregular, the specimen having been cut out of a bigger block. Other jade blades are somewhat thicker (two for instance measuring  $16 \times 7 \times 3$  and  $14 \times 8 \times 3\frac{1}{2}$ ), roughly shaped, almost equally wide at neck and edge and with only superficial polishing. Others again by their smaller size and shape approach Murdoch, fig. 139.

There is only one shaft of antler; it is like Murdoch, fig. 141, but has two holes in the rear end.

*Drills.* A drill bow of ivory, flat, with two holes at each end and dot-and-circle ornament, seems to be quite modern.

Pl. 9. 18 (P15.523) is the foreshaft of a drill, presumably for a bow drill; it is of bone, with a four-sided socket for the bit at the fore-end. Another specimen of similar form has a round socket and no holes in the tang. These bow-drill foreshafts are of a type that was rather widely distributed in the Thule Culture<sup>2</sup>).

Pl. 9. 19 (P15.150) is a small hand drill with a wooden shank, in the cleft end of which is a bone bit with a broad tang and a thin point with two facets; the whole of the drill is whipped with baleen cord. Two small hand drills with iron bits and shanks of ivory and wood are like Murdoch, fig. 161, but smaller, 6—7 cm long.

Three loose drill bits of stone are shown on Pl. 9. 15 (P15. 285) is of green jade with a wedge-shaped, polished point; 16 (P15. 186) is of dark silicious slate, and 17 (P15. 217) of flint.

*Whetting and sharpening stones.* Pl. 9. 13 (P15.60) is a carefully made, rounded-square sharpening stone of greyish-mauve slate. Pl. 9. 20 (P15. 345) is of reddish-brown, speckled silicious slate; its lower end



Fig. 8. 1:4.

<sup>1</sup>) Cf. Murdoch, fig. 130—32.

<sup>2</sup>) See Mathiassen 1927, II, p. 79.

is broken off. Two slender knife sharpeners of green jade with suspension holes are exactly the same as Murdoch, fig. 163. One whetstone, slender, 14 cm long, of slate, has a suspension hole and three whetting surfaces.

A slender *wedge* is of antler, 16.4 cm long.

Fig. 8 (P15. 226) is the blade of a *pick-axe* for sod-breaking when building houses<sup>1)</sup>; it is of whale bone, round, pointed, with a notch in the neck end. Another is much smaller (about 25 cm), with two holes in the neck. A wooden shaft is 52 cm long, widest at the fore

end, where there is a hole.



Fig. 9. 1:2.

Pl. 10. 13 (P15. 113) is a *flint flaker* of the type well known from Alaska<sup>2)</sup>. The handle is old, of ivory, finely ornamented with curved lines; the point, of walrus rib, is lashed on with what looks like a

new baleen lashing. Another specimen has a wooden handle of similar shape.

The manner in which flint was worked was related to Knud Rasmussen as follows: Two pieces of flint were first knocked together and thus broken. A small hammer was then used to chip it roughly into shape. Then the flint flaker (*kigdlik*) was used, one end being pressed against the breast, the other against the flint, which was split off in small flakes.

A *hammer* closely resembles Murdoch, fig. 29, with a head of whale bone and a wooden shaft.

A number of specimens just like Wissler, fig. 41 b are stated to be *ferrules for snow probes*, an implement not otherwise known from Point Barrow, but certainly from the Central Eskimos. The specimens are, by the way, bigger than the corresponding Central Eskimo ferrules, 7 to 10½ cm long 2.2 to 2.5 cm in diameter; some have a cleft in the base (like Wissler, fig. 41 b), others have sockets.

Pl. 10. 10 (P15. 147), of seal bone, with a broad, flat point, is stated to be a *qeidlûtaq* for putting in a lashing when it is to be tightened, i. e. a *marline spike*. A similar use is attributed to Pl. 9. 8 (P15. 368),

<sup>1)</sup> Murdoch, fig. 304.

<sup>2)</sup> Murdoch, figg. 279—81.

which is of ivory, apparently formed out of a wound pin, the extreme end of which has been cut flat.

### *Women's tools.*

*Ulos* (Women's knives). Fig. 9 (P15.88) is a large ulo of polished slate with baleen whipping instead of a separate handle; two notches at the ends on the back hold two wide strips of baleen from which a close whipping of strips runs transversely round the back. Murdoch, figg. 126—27<sup>1)</sup> have apparently had a similar whipping and we know it from the Thule Culture<sup>2)</sup>.

Pl. 10. 9, 11 and 12 (P15. 105, 494 and 495) are other old types of ulo handles; in the last-named are the remains of a baleen blade. Other ulo handles recall Murdoch, figg. 124 (wood) and 125 (whale bone). All these are known from the Thule Culture<sup>3)</sup>.

Pl. 10. 8 (P15. 178) is an ulo handle of a younger type that is not known outside of Alaska<sup>4)</sup>; it is of ivory, small, segment shaped, decorated with lines parallel to the back, on which there are transversal lines and whale-tail ornaments; it has had a stone blade. Another specimen is undecorated, has a hole in the back and an iron blade.

There are *baleen shaves* in the collection, some with slate blade like Murdoch fig. 146, others with iron blade like Ray, Pl. III. 6.

*Scrapers with flint blade with convex edge.* Those in the collection have a wooden handle, with a simple, abrupt bend in the rear end like Murdoch, fig. 291 b, or a handle of ivory with the characteristic Alaskan form: very arched and with deep finger grips<sup>5)</sup> (Murdoch, figg. 292 and 294). The blades are of the usual shape with a wide tang, a flat and an arched side, and a convex edge (like Pl. 3. 19 from Pt. Atkinson, and Murdoch, fig. 297).

Pl. 10. 14 (P15. 165) is a similar scraper blade, of flint, set in a long straight handle of antler, an implement that resembles Murdoch, fig. 298.

*Cup-shaped fat scrapers* of ivory like Murdoch, fig. 300<sup>6)</sup> form part of the collection. On the rounded underside one of them has a bifurcated longitudinal line at both ends. Another, of mammoth tusk, 7.5 × 6.0 cm, has in the bottom at one end an eye, formed of two short slots which run out into one opening on the upper side.

Pl. 11. 1 (P15.1) is a *needle case* of ivory, of rather ancient appearance. Another needle case, which looks much newer, is Pl. 11. 2 (P15.

<sup>1)</sup> Cf. O. T. Mason, Woman's Knife, Pl. LXI. 1.

<sup>2)</sup> Mathiassen 1927, I, Pl. 50. 8-9.

<sup>3)</sup> Cf. Mathiassen 1927, I, Pl. 23—24 and 50.

<sup>4)</sup> Cf. Murdoch, fig. 119.

<sup>5)</sup> One fig.: Mathiassen, Geogr. T. 1928, fig. 5. 13.

<sup>6)</sup> One fig.: Mathiassen, Geogr. T. 1928, fig. 4. 5.



72); it is likewise of ivory, tubular, but at the bottom has two walrus heads, whose upturned, long tusks (three are broken off) serve as thimble holders.

Pl. 11. 3-6 (P15. 196, 527, 515 and 179) are *thimble holders*, all of ivory and of the anchor type. Like the needle cases, these are of very varying, individually marked forms. On a thimble holder of the same shape as Murdoch, fig. 328 a ("belt hook") there is a *thimble* of sealskin like fig. 326 in the same work.

An old-looking specimen is possibly a toggle-shaped thimble holder; it is of antler, 8.1 × 1.7 cm, widens out at the middle where there is a slot, and the pointed ends are turned up to the same side.

A *skin comb* is shaped like Murdoch, fig. 301 c, but lacks its transversal stripes.

Fig. 10 (P15. 364), which is scarcely very old, represents *implements for sewing snow shoes*: a flat iron nail pointed at both ends and with a median hole, in which the thread, of caribou skin, is fastened; at the other end of the thong is a flat piece of ivory. A bone needle of the same shape as the iron needle here is 9.9 cm long.



Fig. 10. 1:4.

#### *Household utensils.*

Of *lamps* there is only a miniature specimen in the collection; it is of soapstone and is apparently a toy; it is the usual half-moon in shape, with no longitudinal partition.

*Cooking pots* are only represented by a fragment of a small, four-sided soapstone pot with a small lug as a handle and in the edge an ornamental longitudinal line.

Two large hooks of antler are indicated as being *pothooks*. One is thick, has a strong, bent-over hook and at the top of the shank two points, turned forward; the other, more slender, has a shank, from the bottom of which extend two strong upturned points; the specimen is very defective, however.

Some *baleen cups and bowls* of the same shape as Murdoch, figg. 18 and 37, have lengths from 13½ to 33 cm.

Fig. 11 (P15. 74) is a *spoon* for whale oil; it is of bone, with a rather large, defective bowl.







A whale bone spoon in the form of a whale (Murdoch, fig. 45) is 26 cm long. "When a whale was killed, a small piece of blubber was brought home on this spoon as an offering to the spirits." Another whale bone spoon has one edge curved inwards and the other curved outwards; as in the case of Murdoch, fig. 44, it is stated to be a "ki-liartut", for scraping blubber. A small horn spoon, 9.8 cm long, with a large bowl 2.6 cm wide, is stated to be an ingmitaq, used for giving water to the dead seal.

A *blubber hook* is like Murdoch, fig. 312, with a barb of antler and lashing of baleen.

An oblong *wooden box*, which widens out from the bottom upwards, but has no lid, is stated to be for feathers; it is  $70 \times 14 \times 8$  cm, and has been repaired here and there with baleen cord. Probably a part of a tool box like Murdoch, fig. 164 a.

A small, oval, straw-plaited *basket*,  $9\frac{1}{2}$  cm long,  $6\frac{1}{2}$  cm deep, is of the same "coiled basketry" that Murdoch describes p. 326.

A narrow, curved strip of ivory,  $11 \times 0.7$  cm, with small holes in the ends, is stated to be the handle of a small water-container of baleen, used for giving water to newly-caught whales.

The *pipes* of the collection are not particularly old. One consists of a bent iron tube which has a large brass collar as a bowl and a cartridge case as a mouthpiece.

#### *Articles of clothing, ornament and toilet.*

Fig. 12 a (P15. 363) is a pair of snow goggles of wood, differing from those generally used at Pt. Barrow in that it is furnished on the upper edge with a projecting eye shade. The specimen does not seem to be very old. Fig. 12 b (P15. 43) is formed of two pieces of baleen, held at an angle to each other by means of baleen cord and leaving an open slot between them.

Pl. 11. 7-9 (P15. 293, 486 and 487) are three *combs* of different shape, the first of antler, the others of ivory; s is ornamented, e. g. with a star round the central hole.

Like the other Western Eskimo collections, this one contains a large number of *labrets*. Many different forms are represented. Numerous are the "novices' buttons" like Murdoch, fig. 91, all of ivory. One is like Murdoch, fig. 92; several of antler, slate and coal are like Murdoch, fig. 96. A number of specimens, the shape of which is not figured by Murdoch, will be seen on Pl. 11: 11 (P15. 278) is of wood;



Fig. 11. 1:4.





Fig. 12. 1:4.

16 (P15. 274), which is markedly waisted at the middle, is of greyish-blue slate; 17 (P15. 123) is of soapstone, 18 (P15. 111) of green jade, and 19 (P15. 272) of coal.

### *Toys.*

A toy soapstone lamp has already been mentioned. Two whaling harpoon heads and foreshafts reproduce the

usual form of these. Pl. 11. 10 (P15. 303) is a *bull-roarer* of baleen, in the form of a whale; it is called *imigdlugtaoq*. Pl. 11. 11 (P15. 294) is a small tube of ivory, said to be a "*pisigsseraq*, shot by children up over a cord with a bow".

### *Objects connected with intellectual culture.*

A *drum handle* of antler<sup>1)</sup> is as figured by Murdoch, fig. 385 b.

Fig. 13 (P15. 235—36) shows two *dance masks* of wood; they do not seem to be especially old, however.



Fig. 13. 1:4.

A number of objects are stated to be *amulets*. Thus Pl. 11. 12 (P15. 54) is indicated as being a whaling amulet, placed on the *uniak* when whaling. It is a whale figure, set on the end of a thin stick, all of ivory. A whale figure of rock crystal<sup>2)</sup> (Murdoch, fig. 422), 3.2 cm long, is a *satdlin*, amulet, carried as a head ornament by women during whaling. Pl. 11. 15 (P15. 53) is also stated to be an amulet; it is a very curved figure of a seal of ivory, with eyes of pyrites and an inlaid blue bead in the back; on the underside two large drilled holes form an eye. An irregularly

<sup>1)</sup> Fig.: Mathiassen, Geogr. T. 1928, fig. 5. 22.

<sup>2)</sup> Fig.: Mathiassen, Geogr. T. 1928, fig. 5. 19.

formed piece of amber, with a hole in one corner, is stated to be an amulet too, *anaaq*. And a pair of eagle's feet and beaks tied together are indicated as an amulet.

### General Remarks.

As will have been gathered from the foregoing, this collection from Point Barrow is very heterogeneous, containing objects of very different ages all mixed up together. Consequently it provides no idea of the culture conditions in North Alaska at any given period, but simply shows types of implements that have been used at Point Barrow in the course of time. As there is no information as to how they were found, there is no stratigraphical basis for a division of the collection into chronological groups.

Then have we no means at all of deciding what is old or new in this collection? The *patina* of the specimens may furnish some guidance, but it may also be deceptive, as specimens found deep down, in permanently frozen ground, may often be better preserved than specimens that have lain in the stratum that is constantly exposed to thaw and frost. But there are other means.

In my preliminary report on this collection <sup>1)</sup> I have divided its implement types according to their distribution outside North Alaska. The *implement types of the Thule Culture* I have separated into a special group; these are types that partly have a very wide geographical distribution, most of them from East Siberia to Greenland, and partly are of very considerable age, at any rate in the Central region and Greenland; and as the Thule Culture is supposed to have come from the west, the types under discussion must be presumed to be at least just as old as in the more easterly regions. Thus the Thule Culture types at Pt. Barrow must be old, from a chronological point of view; this is not saying that all the specimens found of these types are also old; many of these old types have lived on here in North Alaska and are still used to this day, to which circumstance I have called attention elsewhere <sup>2)</sup>.

Of the implement types from Pt. Barrow referred to in the foregoing the following belong to this group <sup>3)</sup>:

Harpoon heads of the Thule type (thin, open shaft socket, single spur); harpoon heads with closed shaft socket and blade at right angles to the line hole; whaling harpoon heads and foreshafts; facet-ground slate harpoon blades; heavy bladder dart heads with single hole and

<sup>1)</sup> Geogr. T. 1928 and Amer. Congr. 1928.

<sup>2)</sup> Mathiassen 1927, II, p. 175.

<sup>3)</sup> A number of them are grouped Mathiassen, Geogr. T. 1928, fig. 4.

conical base; slender harpoon foreshafts with conical butt and single hole; thick, swollen socket pieces for the fore end of the harpoon shaft; ice picks; finger rests; mouthpieces for harpoon bladder; loose lance heads; handles for drag lines shaped like an animal's head; throwing boards; wound pins; composite bows; twistors and marline spikes for the bow; arrow head with conical tang and barbs; owner's mark near the barb; slender stone arrow heads with tang; wolf killers of baleen; side prongs for bird dart with bilateral barbs; bola balls; trout needles (here used for birds); leister prongs; bird snares of baleen; barbs for salmon spears with prominent neck; composite fish hooks; baleen toboggan; wide snow knives; knife handles with end and side blades; knife handles made of two longitudinal pieces; two and single-edged slate knife blades; pointed bone knives; knives for squeezing out water; adze heads and blades (small, facet-ground, with right-angled edge); bow for drill; drill with separate fore part; hand drill; drill bits of stone; wedges; hammers; ferrules for snow probes (?); ulo handles without tang; stone ulo with baleen-whipped handle; baleen shave; scraper blades with convex edge; cup-shaped fat scrapers; anchor-shaped thinible holders; thinibles; half-moon shaped soap-stone lamps; oval baleen bowls; snow goggles; spoons; combs; bull roarers<sup>1</sup>).

According to their geographical distribution these types of implements should form the oldest group at Pt. Barrow, as they have been known at the time when the Thule Culture spread from there towards regions more to the east. Of these types, most are in use today, or at any rate were in use until far into the nineteenth century, as appears from Murdoch's book. Some of them, however, seem to have gone out of use long before that time: the harpoon heads of the Thule type, heavy bladder dart heads, slender harpoon foreshafts, loose lance heads, side prongs for bird darts with bilateral barbs, salmon spear barbs with prominent neck, knife handles with side blade socket, wide snow knives, knives for pressing out water, and ulos of stone. These types are only known from old finds.

The types of implements in this collection that *are not known from the Thule Culture*<sup>2</sup>) may again be divided into two groups according to their distribution and occurrence.

The first of these comprises types which, apart from Pt. Barrow, are also known from present day Central Eskimo tribes. As they are not known from the Thule Culture they must, at any rate in the Cen-

<sup>1</sup>) Types of this group are figured: Pl. 7. 5, 6, 8-9, 15-17, 20-22. Pl. 8. 1-2, 8-10, 13-14. Pl. 9. 1-4, 7, 9, 11, 15-19. Pl. 10. 1-4, 6-7, 9, 11-12. Pl. 11. 4-6 and 7-10, figg. 5, 6, 9 and 12.

<sup>2</sup>) A number of these are grouped: Mathiassen, Geogr. T. 1928, fig. 5.



tral regions, be regarded as being later than the foregoing group. To this belong: Thin harpoon heads with closed shaft socket and the blade parallel to the line hole; swivel for the harpoon line; seal indicator; club-shaped bird dart heads; arrow straighteners; bracers; crooked knives; four-sided soapstone cooking pots; sewn baskets; pipes<sup>1)</sup>.

Of these types the cooking pot at any rate is known to have come from the east (together with the soapstone lamp). Whether the others have migrated the one or the other way is uncertain; the geographical distribution of types such as sewn baskets, bracers, and arrow straighteners outside the Eskimo region would, if anything, indicate a spreading from west to east; the same is indicated by the fact that two of the types<sup>2)</sup> are only known from the most westerly group of the Central Eskimos, the Copper Eskimos, but not from the other Central Eskimo tribes. It may, however, be accidental that some of these types have not occurred in Thule Culture finds.

The second group comprises types that *are only known from Western Eskimo regions*, and neither from the Thule Culture nor the present day Eskimos more to the east. To this group belong: Harpoon heads of the Birnirk type; harpoon heads of the usual modern Alaska type (thin, with blade parallel to the line hole) with its peculiar ornamentation, the slightly flat harpoon heads (especially the types with barbs, which are known especially from Barter Island and Pt. Hope); the artistic boxes for harpoon blades; the short, loose harpoon foreshafts; the small flat bladder dart heads and their foreshafts; the "feather setters"; implements for net-making; the mitten shaped crutch for the kayak; umiak cleaners; the narrow snow knives with holes for baleen whipping; the knife handles with holes for baleen whipping; the slender sharpening stones with hole or groove for suspension thong; pick-axes; flint-flakers with bent-over handle; the small, segment-shaped, characteristically ornamented ulo handles; scrapers with bent-over handle (at right-angles to the blade) or deep finger-grips; the skin combs (tubular in shape); the blubber hooks; the tool boxes; labrets; drum handles with human face; dance masks; and the various forms of whaling amulets<sup>3)</sup>.

All these types have, as already stated, a rather limited geographical distribution and were, furthermore, nearly all in use or at any rate known when Murdoch visited Pt. Barrow in the 1880's. They must therefore be regarded as relatively new types; they are the result of the special development that has taken place in North Alaska after

<sup>1)</sup> Types of this group are figured: Pl. 7. 3, 7, 11-13 and Pl. 8. 4.

<sup>2)</sup> Stefánsson 1914, figg. 39 e, 40 and 42.

<sup>3)</sup> Types of this group are figured: Pl. 7. 1-2, 4. Pl. 8. 3, 6-7, 11. Pl. 9. 4-5, 13 and 20. Pl. 10. 5, 8 and 13. Pl. 11. 12 and 14-19, and figg. 8 and 13.

the Thule Culture had spread from there towards the east. The Birnirk harpoon heads, however, occupy a special place within this group, as they have long been out of use; the chronological position of these, however, has already been discussed in the foregoing; their position is, however, not absolutely fixed.

By considering the distribution of the various types we have thus got this very heterogeneous collection of antiquities from Point Barrow divided into two or three chronological groups. Now will this grouping hold when we include other material from Pt. Barrow in this investigation?

In this connection there are especially three sources we may draw from; the first is *Murdoch's* book, to which reference has frequently been made in the foregoing chapters; the second is *Stefánsson's collections*, of which only the harpoon and lance heads have been published so far, but which Dr. Clark Wissler has very kindly permitted me to study; and finally, we have the *Val Valin collection* in Philadelphia, on which Dr. J. Alden Mason has written a preliminary report.

With the aid of Murdoch's book we can increase the Thule types with the following types, which do not occur in the present collection but which nevertheless prove to have been known at Pt. Barrow: Seal scratcher; sealing stool; umiak; kayak; double paddle; dog sledge; snow shovel; mattock; drill mouthpiece of caribou astragalus; fire drill; sewing needle; hollowed-out wooden bowl; earthenware vessel; top; and amulet box.

If we include Stefánsson's collection (especially the oldest find, from Birnirk) we may add to the above: bows made of several pieces of wood; cutting board for arrow feathers; ice scoop of antler; bodkins of seal and caribou ulna; brow band; pierced bear's teeth, and one or two types that are known from the Naujan find, but the use of which is uncertain<sup>1</sup>).

With this we have named all the types of the Central Eskimo Thule Culture that are known from Point Barrow.

If we now proceed to consider the Van Valin collection, it is seen that it almost only contains types that are found in this Thule group, and also two other Thule types: the winged needle case (which however is also found in another collection from Pt. Barrow)<sup>2</sup>), and drop pendants of ivory. Of the forms of the second main group the Van Valin collection contains only the bracer, of those of the third group only the Birnirk harpoon heads; on the other hand these are rather prominent in the find. But — apart from these — the Van Valin collection

<sup>1</sup>) Mathiassen 1927, I, Pl. 33.5 and 34.1.

<sup>2</sup>) Mathiassen 1927, I, fig. 4.

does not contain a single one of the types in the group which in the foregoing has been labelled as the latest, i. e. the special Alaskan forms, developed since the Thule Culture spread towards the east. It is also of interest to observe that the collection contains no soapstone vessel, but a good deal of earthenware. These circumstances show that the chronological grouping of the Pt. Barrow types of antiquities, which has been undertaken in the foregoing with the distribution as a basis, can really be justified.

The Van Valin collection is at the Thule stage, with the exception that the harpoon heads are of the Thule forms, closely related to the Birnirk types; but apart from these the special development in Alaska has not yet commenced; and the influence from the east, represented by the soapstone vessels, has not yet made itself felt either.

In the Birnirk collection the Thule types also predominate, even if here, too, the harpoon heads are at the Birnirk stage. But in addition, we here begin to find a number of the later, special Alaskan types: harpoon heads with closed shaft socket and barbs; the small flat bladder dart heads; the short harpoon foreshafts; arrow straighteners; crooked knives with baleen whipping; the small, segment shaped ulo handle; scraper handles with bent-over grip; blubber hook; drill mouthpiece of Alaskan type <sup>1)</sup>; small box of antler <sup>2)</sup>. But neither in this case do we find the slightly flat harpoon heads, implements for net making, scrapers with finger-grips, soapstone vessels, pipes and labrets, which thus seem to represent the last stage of the development of culture at Pt. Barrow.

It has been shown elsewhere <sup>3)</sup> how at Point Barrow, too, we find an intrusion of the Bering Sea culture that is so peculiar in its ornamentation, and how the Birnirk harpoon heads are presumably a result of that influence.

<sup>1)</sup> Murdoch, fig. 155.

<sup>2)</sup> Murdoch, fig. 329.

<sup>3)</sup> Mathiassen, Indian Notes 1929, p. 55.



## V. The Point Hope Collection.

Point Hope is the cape which forms the western termination of Alaska's fairly straight north coast. From early times this spot has been an Eskimo dwelling place, famous for its whaling. Knud Rasmussen writes of it<sup>1</sup>): "Point Hope or Tikeraq, 'the cape that runs out like an index finger', is one of the most interesting settlements on the whole of the coast of Alaska and is undoubtedly the largest Eskimo town of ruins to be found. The ancient, now deserted settlement consists of 122 very large houses; but as the water is constantly eating the point away, so that house after house is washed out into the sea, this figure says nothing of how large the village once has been. At this rich hunting ground and its nearest environs alone about two thousand people have certainly lived at one time".

Only very few relics from Point Hope have hitherto been published. Wissler<sup>2</sup>) briefly refers to harpoon and arrow heads in Stefánsson's collection from there. A handsomely decorated harpoon socket piece (Bering Sea Culture) has been described by the writer elsewhere<sup>3</sup>).

Knud Rasmussen's collection from Point Hope comprises 872 specimens, excavated partly by himself and partly by Eskimos. It resembles the Point Barrow collection in that it is very heterogeneous in appearance, with ancient and modern side by side. For the most part the types are those known from the Point Barrow collection, as the cultures at these two fairly adjacent places are naturally closely related. Thus there is no reason to describe the collection in detail in its entirety; only especially interesting or handsome specimens will be figured, whilst reference will otherwise be made to the Western Eskimo collections described in the foregoing and also to previous publications, especially Murdoch's and Nelson's works.

Where the use of the objects is not obvious, the information secured about them by Knud Rasmussen from the local Eskimos will be added as in the case of the Point Barrow collection.

<sup>1</sup>) 1925, II, p. 330.

<sup>2</sup>) 1916, pp. 415 and 429.

<sup>3</sup>) Indian Notes 1929, fig. 15 a.







*Harpoon heads.*

Harpoon heads of the *Thule type* occur in this collection to the number of five, four of which are shown on Pl. 12. 1 (P16. 811)<sup>1)</sup> is of antler and differs from Thule Type 2 only in having three barbs; otherwise it has the ornament characteristic of the Central Thule harpoon heads in front of the line hole. 2-3 (P16. 1018 and 1195 a) are prolonged forms of the same type; the last one has had a separate blade. In material, shape and patina these three specimens resemble each other so much that they must be taken to be of equal age; all the same, two of them have slots and the third has two pairs of holes for the lashing round the shaft socket. 4 (P16. 1019) is of ivory and belongs to Type 3, with a single pair of holes for the lashing.

It is peculiar that harpoon heads of the Birnirk type are not known from Point Hope, neither here nor in Stefánsson's collection; on the other hand the latter also contains a Thule type<sup>2)</sup>.

In the present collection, however, the later harpoon heads with *closed socket* are much more numerous, some of them thin, others the slightly flat type. To the former group belongs Pl. 12. 5 (P16. 810), a handsomely ornamented specimen, of antler, with the blade slit at right angles to the line hole. But here, too, the type with the blade parallel to the line hole like Wissler, fig. 8 and also with a similar decoration, is more frequent; one has the same Y-line as the Thule harpoon heads. The types with barbs are also frequent, with one or two pairs of barbs, with or without blade parallel to the line hole (Wissler, figg. 5, 10 e and 23 a).

The *slightly flat harpoon heads* are rather numerous represented. Pl. 12. 6 (P16. 1023) is of ivory, with three pairs of barbs, and Pl. 12. 7 (P16. 1232) is of ivory with the blade slit parallel to the line hole, and three spurs; otherwise the collection contains the types Barter Island Pl. 5. 2, Pt. Barrow Pl. 7. 4, and Wissler, fig. 10 c—d, the types with one pair of barbs and the blade slit parallel to the line hole, and two pairs of barbs and the blade slit at right-angles to the line hole.

Facet-ground *slate blades* for these harpoon heads are rather numerous in the collection.

Pl. 13. 8 (P16. 1606) is a box of wood for keeping such harpoon blades, carved in the form of a walrus (Cf. Pt. Barrow, Pl. 8. 3, and Murdoch, fig. 251 c.).

Pl. 13. 1 (P16. 829) is a *whaling harpoon head* of whale bone, of an apparently later, sharp edged form; it has a slit for a flint blade and the same ornament that is so common on the later harpoon heads both here and at Pt. Barrow. We also have, however, the more rounded

<sup>1)</sup> The specimens from Point Hope have museum numbers P16.

<sup>2)</sup> Wissler, fig. 17.

forms such as Murdoch, figg. 234—35, some with slate and some with flint blades (Murdoch, figg. 232—33). Two specimens have an ornamental line running from the line hole along its upper and rearmost edge and back to the spur, and this line is in places furnished with single, in others with double oblique lines. Two of them have an owner's mark on the same place as Wissler, fig. 12 c.

*Other parts of harpoons and lances.*

Pl. 12.<sup>8</sup> (P16. 1239) is a *bladder dart head* of antler, with wide, flat base and lateral hole; others are shorter with up to one pair of barbs. Pl. 12.<sup>9</sup> (P16. 1240) is a type that is not known from Pt. Barrow or the more easterly finds; it is round, with a distinct, conical tang and barbs in the plane of the line hole; there are similar specimens in Stefánsson's collection from Point Hope <sup>1</sup>).

Pl. 12.<sup>10-11</sup> (P16. 1384 and 842) are *harpoon foreshafts*, both of ivory and fairly small; the former belongs to the earlier type with slot-like, lateral line hole, the other to the later, round type; the former has apparently been shafted like Mason, Harpoons, figg. 83—84, the latter like Murdoch, fig. 214.

There are *socket pieces* for the fore end of the harpoon shaft similar to Wissler, fig. 42 c and c, some wedge-shaped, others with pointed base.

The *ice picks* of the collection are partly of the old form, crudely made with obliquely cut upper end, partly of the later, special Alaskan form, long, slender, slightly curved, triangular in section, with a wedge-shaped upper end <sup>2</sup>).

There are lance blades of flint like Murdoch, figg. 246 (a fine specimen, 7 cm long, slightly polished at the edge) and 240.

*Bladder mouthpieces* and *finger rests* call for no special mention.

*Other implements for marine hunting.*

Pl. 12.<sup>14</sup> (P16. 1465) is a *wound pin* of ivory, foursided. <sup>15</sup> (P16. 26), likewise of ivory, in its form recalls a wound pin, but is much longer and thicker than these usually are; possibly it is a marline spike <sup>3</sup>).

A *seal scratcher* is the same as Murdoch, fig. 253 a, without claws.

Pl. 12.<sup>12</sup> (P16. 819) is a carving of ivory in the form of a seal's head, stated to be the ferrule of a wooden stick with which holes were made in the snow shelter-wall when hunting for bearded seal, in order to keep an eye on the seal and harpoon it when near enough.

Pl. 12.<sup>13</sup> and <sup>16-18</sup> (P16. 844, 881, 883 and 882) are four *handles*

<sup>1</sup>) Wissler, fig. 15.

<sup>2</sup>) Murdoch, fig. 225.

<sup>3</sup>) Cf. Murdoch, fig. 284.

for *drag lines*, all carved out of ivory in the form of animal heads: The first has a seal's head at one end, and a raven's head at the other; the second has a bear's head <sup>1)</sup>, one eye being inlaid with a blue bead; the third is a double seal's head, and the fourth a wolf's head. These carved handles served at the same time as a kind of amulet, as they gave good hunting.

A number of specimens are indicated as "*implements for net-fishing for seals*". Pl. 14. 8-10 (P16. 1160, 1540 and 1541) are hooks (*igdlartut*) for fishing the line up from the middle hole when the net is to be laid; the first two are of ivory, one with a seal's head below; the third is a heavy hook of antler. Pl. 14. 14 (P16. 1572) are two connected links of ivory for a seal rattle (one link is missing), which by its noise is intended to attract the seal. A heavy sinker of whale bone, fusiform, is 18.4 cm long; at one end is a small hole, at the other a bigger, oval hole. Another sinker is only 11.9 cm long, flatter, with holes at both ends, an eye in the one side and a pair of drilled holes further down on the other side.

Pl. 13. 5 (P16. 1051) belongs to the type which Murdoch calls *flipper toggles* <sup>2)</sup>, said to be used for towing a killed whale. It is of whale bone and handsomely carved like a whale, with an eye in the back; in the middle of the rather flat belly is a hacked hollow, as if the specimen had been used as a sort of hammer. It is indicated as being: "Kâgut, used as a umiak amulet and tool, hammer, for instance for hammering implements, or the tail fin for fixing up the bottom of drinking vessels or the like. After killing whales it was brought to the festival house and hung up under the roof during the whaling feast."

#### *Archery.*

Pl. 14. 1-2 (P16. 1059 and 1) are two *bracers*, of ivory, of the usual forms. There are *sinew twist*ers of the usual type, some with, some without median hole.

An *arrow straightener* shaped like Pl. 8. 4 has two caribou etched at the wide end on the sides.

The *arrow heads* all have conical tangs; most have two opposite knobs, more rarely with these at different heights or quite without them. The specimens with one powerful barb, without separate blade, are numerous; two have owner's marks on the base. There are, however, arrow heads with two or three unilateral barbs with or without separate blade. The only one entirely without barbs is Pl. 14. 3 (P16. 815), of antler, with three pairs of notches in the side behind the widest part of the blade. The club-shaped bird arrow heads are also represented in the find.

<sup>1)</sup> Cf. Murdoch, fig. 257 e.

<sup>2)</sup> Murdoch, fig. 250.



Pl. 14. 4-6 (P16. 948, 1337 and 1338) display three different forms of flint arrow heads.

Pl. 14. 7 (P16. 861) is a small cylindrical *box* of antler, stated to be an útdlut, a box for keeping arrow heads in; both lid and bottom are now missing, however.

A sawn-off end is of a *quiver rod* such as Murdoch, fig. 191, of ivory, carved like a caribou head in prolongation of the rod, which is pierced just behind the head.

#### *Other hunting implements.*

*Bola balls* occur in large numbers and in very varying forms, mostly fairly small. Besides the pointed, egg-shaped forms known from Pl. Barrow this collection contains longer ones, edged or irregularly formed. Pl. 14. 11-13 (P16. 1397, 1117 and 1411) shows three of these, the first two of whale bone, flat and round respectively, the third of ivory, edged.

Pl. 14. 17 (P16. 1585) is a very small *fish hook* of ivory. Pl. 14. 15 (P16. 1573) is a well-carved chain of ivory, stated to be for a salmon hook.

There are *leister prongs* with one or two rows of barbs. Pl. 14. 16 (P16. 1390) is the broken-off fore end of a small leister with fine-toothed bone prongs, wooden shaft and baleen lashing.

There are the usual forms of *mesh gauges* for nets.

#### *Means of conveyance.*

Pl. 15. 7 (P16. 1052) is a piece of a *swivel for a sledge trace*, of antler, a form that is not known from more easterly regions. Another specimen is a long, round bone stick of the same shape as Nelson, Pl. LXXVI, No. 2, the uppermost object.

A *block*, of ivory, for the sail ropes of a umiak, is shaped like Nelson, Pl. LXXVIII. 20.

A *thong stud* (agssagikut) for the kayak line, is shaped like a seal's head, of ivory, 2.2 cm long, with a hole through its widest part.

#### *Men's knives.*

Both handles and blades for men's knives are numerous in the collection. The most important types are reproduced on Pl. 15.

1 (P16. 1249) is a large knife, presumably for whale flensing. The handle, which is of antler with baleen whipping, has been prolonged to the rear; the blade is of slate, two-edged, polished. 2-4 (Pl. 16. 1260, 1259 and 1482) are smaller knife handles with end blade socket, all of antler; the last two have a suspension hole bored through the widest part. 5 (P16. 1483) is the handle of a crooked knife, of antler, with bent-over fore end, in the side of which is the blade socket; it is de-







corated with a roughly scratched human figure. <sup>6</sup> (P16. 1274) is a pointed dagger of ivory, the handle of which is carved like a caribou head; it is stated to be for killing caribou by stabbing it in the armpit. <sup>16</sup> (P16. 796) is a two-edged knife, entirely of slate; <sup>9</sup> (P16. 1017) is an uncommonly well-made two-edged knife blade of flint, perhaps the finest known specimen of Eskimo flint technique; <sup>8</sup> (P16. 1255) is a single edged knife blade of polished green jade; single-edged slate blades are also common.

Many of the knife blades here, as at Pt. Barrow, are furnished with rows of holes for a whipping of baleen. Bear-bone daggers, and the whittling knives made of two longitudinal pieces, also occur in the collection.

#### *Other men's tools.*

A whale bone edging for a *snow shovel* is 31 cm long,  $5\frac{1}{2}$  cm wide, rather curved; in the concave edge is a deep groove made by drilling for the edge of the wooden blade of the shovel, with 12 holes for the lashing; the groove is defective, however. The upper end of a snow shovel, of whale scapula, is about  $33 \times 21$  cm; at the upper end it is only 12 cm wide, but from there widens out quickly; in this part are two holes for the handle-lashing.

A number of *knife sharpeners* are of green jade with suspension hole, like Murdoch, fig. 162, although for the most part they are more roughly made. Others resemble Pt. Barrow, Pl. 9. 20, of polished blueish or brown silicious slate with a pair of notches for the suspension thong. A slender, four-sided whetstone of slate is 24 cm long.

Of *adzes* we have representatives of all the types mentioned by Murdoch from Pt. Barrow, often handsome specimens. Two thick, polished jade blades measure  $20 \times 7.3$  and  $16.7 \times 7.7$  cm respectively; the latter has, in contrast to the former, faint transversal grooves for the lashing.

Pl. 13. 2-3 (P16. 1136 and 1188) are two bone heads with jade blades; the former is of whale bone with vertical holes through the neck and a fairly thin blade; the latter is of antler, with no hole, thick blade, the sides of which meet at the edge almost at right-angles. An uncommonly heavy head is of whale bone,  $14.6 \times 8.0$  cm, has three horizontal holes through the neck and two pronounced shoulders where the neck runs into the blade, a shape that is common in the Central Eskimo Thule finds <sup>1)</sup>.

Two blades for *mattocks*, like Murdoch, fig. 303, are as usual of whale rib and have three wide transversal grooves for the lashing.

Two heavy *wedges* are of whale bone; near the head one of them has a drilled hole through one edge.

<sup>1)</sup> Mathiassen 1927, I, Pl. 20.c.

Pl. 13. 4 (P16. 1529) is an implement formed of a whale rib; at one end it has a shaped hand-grip, whereas its concave side bears marks of blows. It is stated to be a *hammer* for knocking nails, etc. into the bottom of wooden trays or for knocking wedges in. Pl. 13. 7 (P16. 1590) is a small hammer head of whale bone, indicated as being a *natqutik*, for breaking flint nodules.

A *flint flaker* is of the same form as Murdoch, fig. 279 a, of ivory with a bone point.

Two mouthpieces for a *bow drill* are small pieces of limestone with a drill-hole in one side. Two drills are quite the same as Murdoch, fig. 159, with wooden shank and flint bit; the form of the rear end indicates that one of the specimens has been used as a hand drill, the other as a bow drill. Pl. 15. 15 and 17-19 (P16. 805, 1344—45 and 995) are various *drill bits* of flint; of these the last three have been inserted in shanks. Two drill bits are of green jade, with round point and wider base.

Pl. 16. 4 (P16. 908) is the *handle of a tool bag* similar to Murdoch, fig. 170, of ivory, flat on one side.

#### *Ulos.*

Pl. 13. 10 (P16. 1369) is an ulo with wooden handle (defective), roughly shaped slate blade and a lashing of baleen cord. Pl. 13. 11 (P16. 1142) is a slate blade, the hole of which was first made by cutting, but completed by drilling. Other ulos are shaped something like Pt. Barrow, fig. 9 (with baleen whipping), Murdoch, fig. 123, and Nelson, Pl. XLVII. 4.

#### *Scrapers.*

A number of scraper *handles for convex-edged flint scrapers* belong to the peculiarly Alaskan forms, well known from Murdoch's book. Some, like fig. 289 in the latter, only have the rear end bent over, but otherwise are very straight; others, like fig. 290, are very arched, whereas others again belong to the more modern forms such as fig. 295, with deep finger grips. Pl. 15. 11 (P16. 1297 a) is an ancient looking handle of mammoth tusk, of the second of the above types; at the fore end on the upper side a human face has been etched in with eyes, nose and mouth, and it is also drilled across for the binding that has held the flint blade. Pl. 15. 10 (P16. 1350) is a typical flint blade for these scrapers.

A caribou leg bone, 29 cm long, has had one side removed and the edges sharpened, to that it could be used as a *two handed scraper*<sup>1)</sup>.

Pl. 15. 13-11 (P16. 1364—65) are representatives of a group of implements that are stated to be baleen scrapers, presumably an implement si-

<sup>1)</sup> Presumably it is a similar, but defect implement which Murdoch illustrates, fig. 299.









milar to the *baleen shaves* described by Murdoch; he mentions also <sup>1)</sup> that "an oblong flint, flaked to an edge on one face" was used similarly. The specimens in this collection are curved, thick flakes of flint, the edges of which have been pecked so that they form scraping edges, some of them being slightly convex, others slightly concave: the latter, however, seem to be carefully made; on several of the specimens there are half-round notches as on 14. The lengths vary from 6 to 10 cm.

Besides the ordinary *cup-shaped scraper* of ivory <sup>2)</sup>, this collection contains a variant of it, also used as a fat scraper. It is a slightly arched piece of ivory, with a projecting lip or two knobs at one end; the edges are worn. Pl. 15. 12 (P16. 1291) is a specimen of this form, which is not known from more easterly finds.

#### *Other Women's tools.*

A *needle case* is shaped just like Murdoch, fig. 327 b, tubular, with appendant belt-hook, sharpening stone (of silicious slate) and bone knob. Be-

sides this we have the two illustrated on fig. 14, in human form, specimens which I have already figured and discussed elsewhere <sup>3)</sup>. They

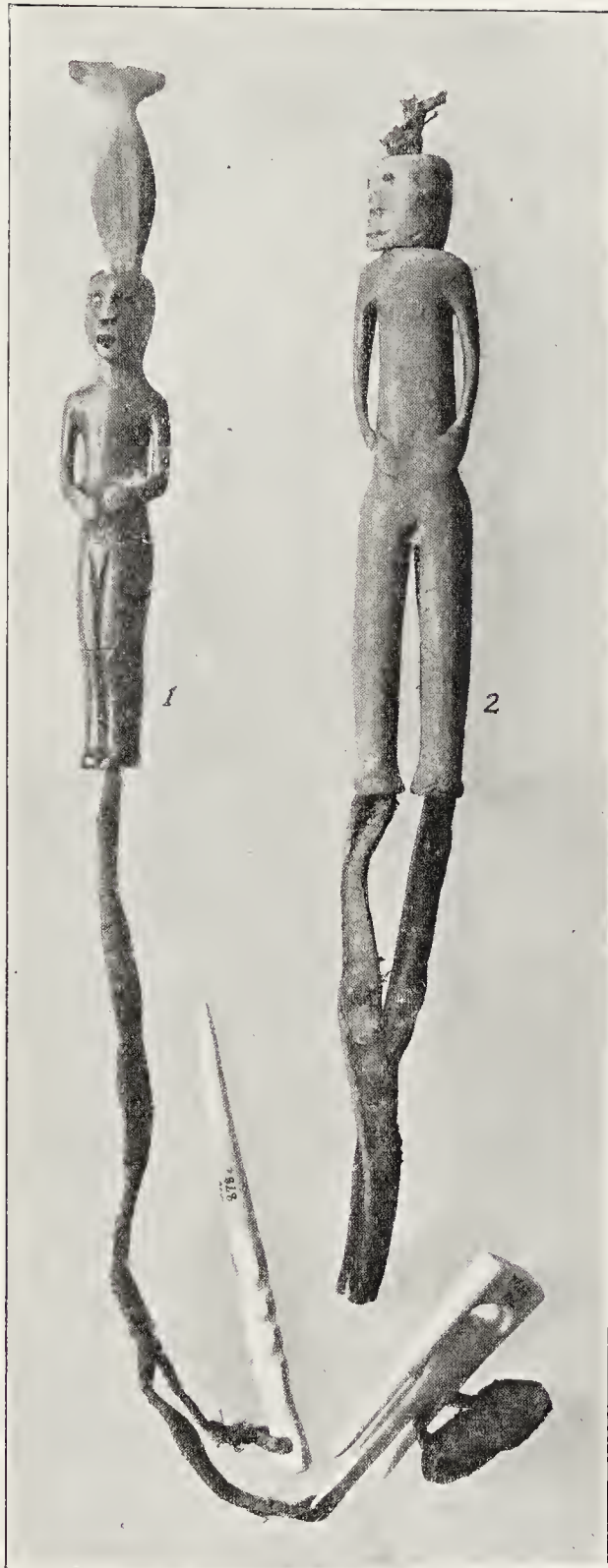


Fig. 14.

<sup>1)</sup> p. 174. <sup>2)</sup> Murdoch, fig. 300 a <sup>3)</sup> Mathiassen 1927, II, fig. 3.

are both of ivory. <sup>1</sup> (P16. 878) is an old-looking, dark brown specimen, one eye of which is of inlaid pyrites; on the outer side of the legs it is decorated with lines having short transversal lines. The thong with the whale at the top, the bodkin and thimble holder below, is new. <sup>2</sup> (P16. 877) looks younger; in contrast to the foregoing the legs on this each forms its own tube; the head is loose, newly made, as is also the thong.



Fig. 15.

These needle cases in human form I have taken to be the prototype of the type occurring in the Thule Culture from Pt. Barrow to East Greenland, which has been called the "winged needle case" <sup>1</sup>). In a review Dr. Gudmund Hatt <sup>2</sup>) has expressed doubt as to this interpretation of the winged needle case. However, I am of the opinion that two needlecases in American museums strengthen my theory. Fig. 15 is a needle case in the Museum of American Indian, Heye Foundation, whose director, Mr. George G. Heye, has kindly given me photograph of it. It is from Norton Sound. The needle case is of ivory, 8.9 cm long and scarcely very old, with appendant belt hook, thimble holder with thimble and sharpening stone; in form and ornamentation it displays great resemblance to the winged needle cases from Pt. Barrow <sup>3</sup>), but has the arms (the "wings") separated from the body by slots and thus becomes more "human". The other specimen is in the Van Valin collection in Philadelphia <sup>4</sup>), that is to say from Pt. Barrow, and very old. It is more cylindrical, but at the middle has a pair of bent arms, separated from the body and formed almost like fig. 14. <sup>1</sup>. These two specimens seem to form a link between the human figure as on fig. 14 and the winged needle case of the form we know from Pt. Barrow; conventionalization has started, but the human figure can still be distinguished; only further eastwards does it become quite unrecognizable.

In addition I may add that in Stefánsson's collection from Langton Bay, between Mackenzie and Coronation Gulf, now in the American Museum of Natural History, New York, there is a curious specimen of the winged needle case, with two bear figures crawling on the

<sup>1</sup>) See Mathiassen 1927, II, p. 92 seq. and my paper "Det vingede Naalehus" in *Geografisk Tidsskrift* 1929.

<sup>2</sup>) *Geogr. Tidsskr.* 1928, p. 12.

<sup>3</sup>) Mathiassen 1927, II, fig. 4.1.

<sup>4</sup>) University Museum No. NA 10468. A sketch fig. *Geog. Tidsskr.* 1929.







wings; it helps to fill up the gap between these needle cases at Pt. Barrow and in the Hudson Bay regions. And furthermore, a fine example of the winged needle case has been discovered during the excavations which Cadzow made at Cape Dorset, the southwest corner of Baffin Land, during Putnam's Baffin Land journey<sup>1</sup>).

*Thimble holders* are present in rather varying forms. Pl. 16. 1-3 (P16.



Fig. 16.

909, 1496 and 1428) show three specimens, all of ivory, the last one defective. A fourth is shaped like Nelson, Pl. XLIV. 19.

There are *skin combs* like Murdoch, fig. 301, with teeth at both ends or one end only.

#### *Household utensils.*

Fig. 16 (P16. 873) is a soapstone lamp,  $39 \times 20$  cm, of the usual Pt. Barrow type<sup>2</sup>), with a partitioned-off compartment at the back, where the bottom is higher than that of the rest of the lamp; at the middle the partition is divided by a notch. It is a type of lamp that has been brought to this region from the east by trade with the Mackenzie Eskimos, and the latter again have had it from the Copper Eskimos<sup>3</sup>). Thus it is no original Alaskan form, and it is scarcely very old in Alaska. Here there may be reason to recall that in the two largest complete finds from these regions, Stefánsson's collection from Birnirk and the Van Valin collection from Pt. Barrow, there are no soapstone lamps but only those of clay.

Fig. 17 (P16. 36) is a large *clay cooking pot*, broken, but put together and restored. It is 33.5 cm high, 21.5—24.5 cm in diameter at

<sup>1</sup>) Museum of Amer. Ind., Heye Foundation, No. 15/7934.

<sup>2</sup>) Murdoch, fig. 47.

<sup>3</sup>) Stefánsson 1914, p. 68.



the mouth, 11 cm across the bottom. Round the outside is a pronounced fluting, the pot having apparently been built up of strips of clay in a spiral, the same process as that described by Nelson, p. 201, from St. Michael on Norton Sound. A little below the mouth is a seal thong round the pot, which is also repaired with baleen cord in two places.



Fig. 17.

A fragment is of an earthenware vessel with a round bottom, 1.2 cm thick.

A *lamp trimmer* is of slate, straight, flat, 14.4 cm long, with a sharp and crooked point.

Fig. 18 (P16. 1559) is stated to be a *blubber dripper* (ajágssaut), an implement not otherwise known from the Western Eskimos, but on the contrary from the Central-regions, albeit in a somewhat different form<sup>1</sup>). It is a vertical wooden stick, 47 cm long, having at the top a whale with eyes of red glass beads; from this runs a horizontal wooden stick, 40 cm long, in the

upper edge having a row of notches. It is set up over the lamp, pieces of blubber being hung on the stick where they are held by the notches; the heat of the lamp makes them melt and they drip down into the lamp. The figure of the whale shows that it has belonged to an umialik, a boat owner.

Of bowls and trays the collection contains the usual oval bowls with vertical sides formed of one long shaving of wood like Murdoch, figg. 19 and 34.

A *dipper* is of the horn of mountain sheep, similar to Murdoch, fig. 38, but the handle, which is missing, has been fastened on with baleen cord; another horn dipper is smaller, 24 × 10 cm.

A *spoon* of wood has an oval, rather flat bowl and a short handle, which at the rear end widens out and is furnished with a notch; 23½ × 12 cm. Another wooden spoon has a round, deep bowl, about

<sup>1</sup>) Mathiassen, Iglulik Eskimos, fig. 91.

8½ cm in diameter, and a short handle. A spoon of antler is 18½ cm long, with a small, oval bowl.

Fig. 19 (P16. 1181) is an oval vessel hollowed out of wood in the form of a whale, on which the mouth and flippers are indicated; in both ends is a piece of pyrites. It is stated to be an *útdlut*, a box for keeping flint; it is a part of the furnishings of an *umiak* and was stored in *aineq*, two unhaired seal skins sewn together; it measures 33 × 15 × 9 cm.

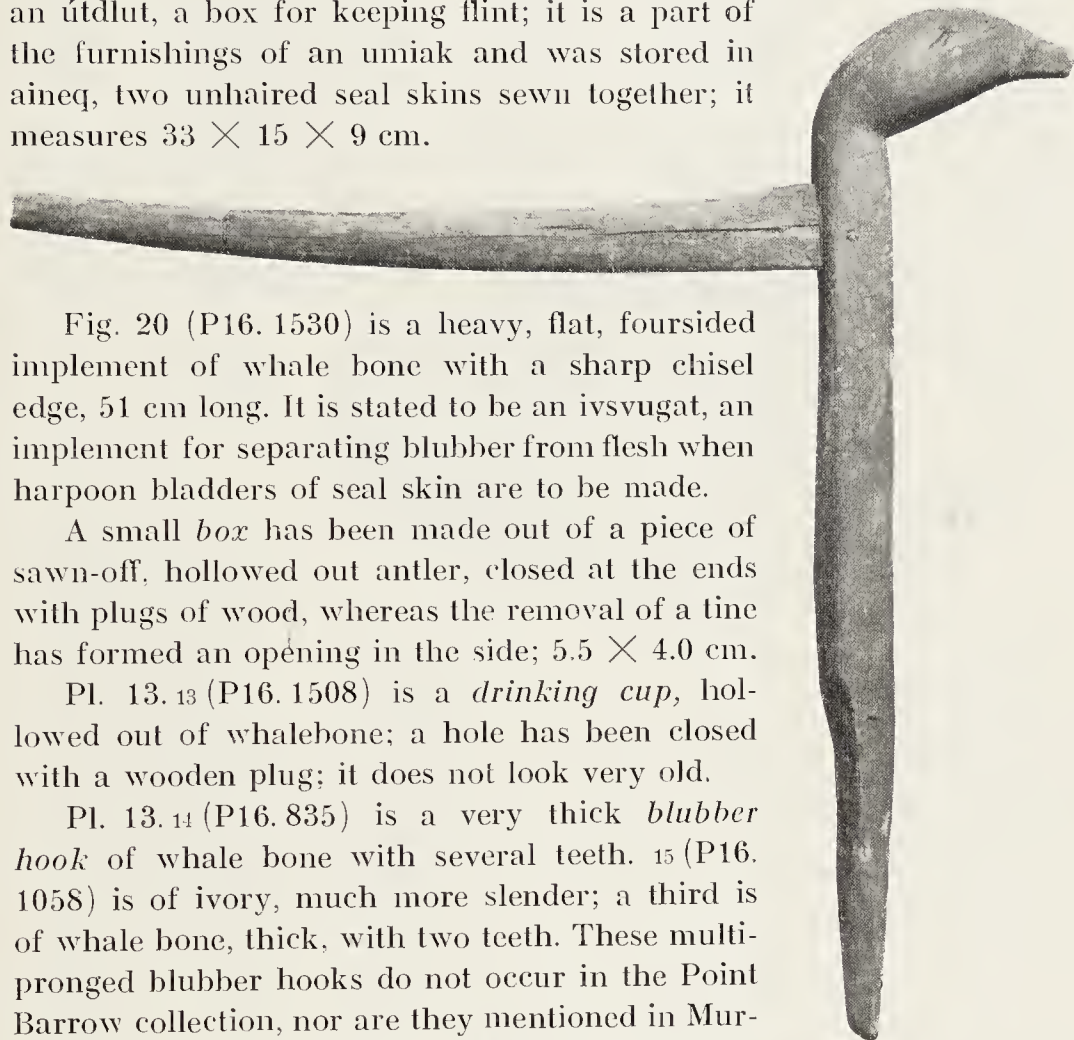


Fig. 18.

Fig. 20 (P16. 1530) is a heavy, flat, foursided implement of whale bone with a sharp chisel edge, 51 cm long. It is stated to be an *ivsvugat*, an implement for separating blubber from flesh when harpoon bladders of seal skin are to be made.

A small *box* has been made out of a piece of sawn-off, hollowed out antler, closed at the ends with plugs of wood, whereas the removal of a tine has formed an opening in the side; 5.5 × 4.0 cm.

Pl. 13. 13 (P16. 1508) is a *drinking cup*, hollowed out of whalebone; a hole has been closed with a wooden plug; it does not look very old.

Pl. 13. 14 (P16. 835) is a very thick *blubber hook* of whale bone with several teeth. 15 (P16. 1058) is of ivory, much more slender; a third is of whale bone, thick, with two teeth. These multi-pronged blubber hooks do not occur in the Point Barrow collection, nor are they mentioned in Murdoch's book; they are obviously a Western form.

The broken fore end of a large blubber hook has on each side of the wooden shank a powerful barb of whale bone like Murdoch, fig. 312, but the neck does not project.

A large block of whale bone has been used for *fire drilling*, there being large drill holes in both sides.

### Pipes.

A bowl, exactly like Murdoch, fig. 6 b, is of some chalky stone. A small pipe, 8.3 cm long, is carved in one piece out of ivory. A third pipe has a bowl of ivory, 3.5 cm high, with an owl's head at the bottom, and a wooden mouthpiece with a brass mounting.

*Articles of clothing, toilet and adornment.*

Pl. 16. 12 (P16.8480) is a rather new-looking *button* of ivory, carved in the form of a seal; on one side it has one, on the other three dot-and-circle ornaments.

A pair of *snow-goggles*, of wood, are shaped like Nelson, Pl. XLIV. 11; in one edge there is a hollow for the nose.

There are large numbers of *combs* and, as is usually the case in Alaska, in forms that vary greatly. On Pl. 16. 5-10 will be seen some of these<sup>1)</sup>; the last one is of ivory, the others of antler. Several of them are



Fig. 19.

decorated with realistic figures; on 6 and 10 are caribou, and 7 displays a man relieving nature; his tracks in the snow can be seen.

Fig. 21 (P16. 1426)<sup>2)</sup> is a comb of antler having at the top a hu-

man head with a very distorted face. One comb resembles Pl. 16. 5 in shape, but along the edge it has a border with spaces and small, hatched fields. Another is shaped like 6 but is decorated with three long angular lines one above the other; a third is of the same shape as 8, but is decorated with dot-and-circle ornaments. Other combs are like Murdoch, fig. 98.

Pl. 16. 11 (P16.817) is a thin band of antler, now very curved; in the ends it has small elongated holes and on the outer side it is decorated with several longitudinal lines and cross-hatched fields. The specimen closely resembles the brow bands that are known from the Thule Culture in the Central regions<sup>3)</sup>; in this case the curved shape would be secondary. The specimen is stated to be a bracelet, talcraq, for which, however, it seems to be insufficiently curved.

There are numbers of *labrets*, of various forms and materials: wood, ivory, limestone, coal, greenish slate. They are mostly of the same forms as those in the finds described in the foregoing. The most common are the novices' labrets, of the shape of a truncated cone (Pl. 6. 7, Barter Island); they gradually become thicker in

<sup>1)</sup> Museum Nos.: P. 16. 1420, 1416, 1153, 1151, 1423 and 1421.

<sup>2)</sup> Figured in Mathiassen 1927, II, fig. 6.

<sup>3)</sup> I. c., I, Pl. 57. 6, from Qilalukan.








form, as for instance Pl. 16. 15 (P16.903) which is of ivory. We have also the more spherical forms (Pl. 11. 17, Pt. Barrow), in both slate and coal; the latter has a hollow at the top for a bead. The long, narrow labrets (Pl. 6. 8, Barter Island) are present in ivory and coal, with lengths up to 6.2 cm. Pl. 16. 14 (P16.1569) is one of these, of ivory, and ornamented. One of limestone is very flat, with a deep groove and slightly curved.

### *Toys.*

Pl. 16. 13 (P16.1561) is flat disc of slate which on one side, where it is slightly rounded, is ornamented with two of the most important ornamental elements of the Thule Culture; round the central hole is a border , from which Y-figures radiate to all sides. It is stated to be for a *top*, kiapsaq, used for races, the idea being to see how far one could run before it fell.

A *wooden doll*, 12.6 cm long, is shaped like Murdoch, fig. 388 a, though more crude. There may at this point be reason for drawing attention to the fact that the primitive representation of man that recurs in all the dolls of the Central Thule Culture<sup>1</sup>), with flat face and arms either lacking or only indicated by knobs, is not known at all from Alaska, neither from these collections nor from previously published material. This might indicate that this primitive form is a phenomenon of degeneration and that the better made Alaskan dolls, with featured faces and arms, are the original forms<sup>2</sup>).

A thin point of baleen, 9.5 cm long, is carved at the fore end like a harpoon head, with spurs and blade, and is presumably a *toy harpoon*.

### *Objects relating to religion.*

It would seem as if objects that are associated with intellectual and religious life become more and more prevalent in the finds the further west one goes. In the Central Thule Culture as well as in Greenland, the number of objects that come in under this heading are strikingly few; the same applies to the more easterly of the finds described here, Pt. Atkinson and

<sup>1</sup>) See Mathiassen 1927, II, p. 118.

<sup>2</sup>) The only place within the Western Eskimo region from which we know of these primitive dolls without face is St. Lawrence Island, Nelson Pl. XCIII. 7, some poorly-made dolls, probably not very old.



Fig. 20.



Barter Island; there the culture bears a very unfanciful stamp, and the finds contain practically only such objects as have been used in every-day life. At Pt. Barrow there began to appear a number of objects that were connected with religion, and here at Pt. Hope the number and variety of these objects increases. It would seem as if the people here at the rich hunting grounds of Alaska have had more time and thought for matters relating to the higher powers than in the poorer regions further east, where much time and energy is spent upon the struggle for existence. How old all these amulets, masks, etc. are in Alaska is another question, on which not much light can be shed until more extensive excavations are made. From their appearance, however, many of the objects seem to be of considerable antiquity.



Fig. 21.

A *mask* of wood is very like Murdoch, fig. 367 (although without the latter's dancing gorget); it is indicated as being a *kinarêq angarshut*, a spirit seen by a shaman.

Fig. 22 (P16. 1605) is an old *wolf mask*, of wood, 26 cm long; it is hollowed out at the back, whence openings run to the eyes and to a hole in the lower side; the tongue can be seen between the jaws. Pl. 13. 12 (P16. 1604) is stated to be a *fox mask*, also representing the experiences of a shaman.

Pl. 13. 6 (P16. 1438) is a *drum handle*, made out of an old whaling harpoon head of ivory.

The collection contains a fairly large number of *amulets* of various kinds and for different purposes, and these objects gain rapidly in value on account of the traditions as to their use which have endured among the local population and which Knud Rasmussen succeeded in elucidating.

Some of them represent human heads, always with the features of the face, placed in various ways. Pl. 17. 2 (P16. 880) is a double face carved in whale bone; one face is very distorted and one cheek swollen, as if by a gum boil; the other (seen in the picture) has only a distorted mouth; it ends at the neck in a pivot pierced by a hole; it represents a spirit and is carried as an amulet in the belt, the effect being that nothing escapes the wearer's attention.

Pl. 13. 16 (P16. 1596) is a head of wood with a piece of flint in one eye. It is a *kingup inordlua*, which closed the main opening in a harpoon bladder and thus prevented it from being lost; meat and blubber were sacrificed to it.

Pl. 17. 3 (P16. 1599) is a head fastened by a thin neck to a block of wood; it is a *qúpqârat inue*, an *umiak* amulet, used during the







great whale hunt in autumn; it was considered to be alive and was usually burned after the festival at the end of the hunt.

Of two broken wooden heads with faces in relief, one, 10 cm long, has been on the end of a blubber dripper, and meat and blubber were sacrificed to it. The other, which is quite small ( $3.9 \times 2.0$  cm), is an inúngûsaq, which has stood behind the lamp as the image of a spirit, a house amulet for good hunting which merely needed to be present at meals without getting anything itself.

Pl. 17. <sup>1</sup> (P16. 1607) is an old doll of ivory with no head, but with a socket for a loose head; it is an angâgkúarut, which a shaman during his incantations could bring to life so that it might walk into the festival house and look round; it has had a moveable head.

Pl. 17. <sup>5</sup> (P16. 1568) is a shaman's amulet; it is of wood with an inlaid striped stone, whose spirit could come to his aid.

Pl. 17. <sup>12</sup> (P16. 1570) is another shaman amulet in the form of a white whale, of ivory, with inlaid pieces of amber at each end; when the shaman used this amulet fire

flamed out of his mouth and the white whale came to his assistance. Pl. 17. <sup>16</sup> (P16. 1582) is a ring-shaped necklace bead of ivory; these ujamerqut were used as amulets.

A number of small objects have been used as whaling amulets: Pl. 17. <sup>6</sup> (P16. 870), of chalcedony, flat on one side, is a niaqorut, for wearing in the brow band when whaling is proceeding. A whale figure of red jasper, 4.4 cm long, like Murdoch, fig. 422, is an ujamitauaq, worn round the neck when out whaling. An amber bead of rounded, irregular form,  $1.6 \times 1.7$  cm, pierced by a fine hole, could be used either as a forehead ornament or as a pendant. It is called auma. Two whaling amulets are carved out of ivory in the form of whales; one is 4.6 cm long, the other 5.0 cm, with a hole in the back for a stone which, however, has fallen out.

A small oval box, of ivory,  $3.9 \times 3.0$  cm, in which is a piece of graphite, is called minguteqorfik with torsúngmiutaq; the graphite was used for smearing on the face when whaling, the men over the eyes, the women from the nose across one cheek, and another stripe on the end of it and at right-angles to it; this gave good whaling.

Pl. 17. <sup>7-9, 11 and 14</sup> <sup>1)</sup> are five small carvings in ivory, all indicated

<sup>1)</sup> Museum Nos.: P16. 1575, 874, 876, 1576 and 1574.



Fig. 22.

as having decorated the festival drum, qilangâtsiaq; No. 8, which is in the form of a whale's tail, seems to be the end link of a chain; No. 9 is a whale, the others seal heads.

The caudal vertebra of a whale,  $3.7 \times 3.2$  cm, is a kisigsit, which was drawn on a string in the umiak in order to keep count of the whales that were killed; at the same time they served as umiak amulets — the more of these there were in the boat, the easier were the whales to kill.

A lump of soapstone, with a hole at one end, and at the other side with a large, concave, smooth surface,  $7.1 \times 4.2$  cm, is a tunertaq, which was used as medicine, a piece being cut out of the stone and pulverised, and then rubbed on the sick part.

#### *Objects of uncertain use.*

Pl. 13.<sup>9</sup> (P16.1563) is of whale bone, decorated with two whale figures, lines with short transversal lines, and an inlaid blue bead; it might have been used for connecting a thong to a harpoon bladder or the like.

Pl. 17.<sup>4</sup> (P16.27) is a flat, needle-like implement of ivory, on one side decorated with four caribou. <sup>15</sup> (P16.1471) is a small object of ivory like a bodkin. <sup>10</sup> (P16.28) and <sup>13</sup> (P16.1475) are ivory carvings, the latter is hollow on the backside.

#### **General Remarks.**

As has already been stated, the Point Hope collection is of the same character as that from Point Barrow: It is a mixture of old and new, there is no information as to the conditions under which the objects were found, and thus it cannot be utilised for far-reaching chronological conclusions. In the same manner as with the Pt. Barrow collection, however, it can be classified with the geographical distribution of the types as a basis; in this respect it will be the occurrence or non-occurrence of the various types in the Central Thule Culture that will form the most important basis for the classification.

Most of the types in this collection are also included in the Pt. Barrow collection, so there is no reason for repeating the grouping of these. The types in the Pt. Hope collection that are not in the Pt. Barrow collection may be grouped in the following manner:

1) *The Thule Group*: are also known in the Central Eskimo Culture: Harpoon heads of Thule type 2 with several barbs, and of type 3; seal scratchers; arrow heads without barbs; two-edged slate knives; snow shovels; mattocks with wide edge; lamp trimmers; earthenware

vessels; bowls hollowed out of wood; chains; brow bands; tops; and — if my interpretation of the winged needle case is correct — the needle cases in human form and the dolls with faces.

2) *The later, particularly Western Eskimo Group*: Whaling harpoon heads of the later, sharp-edged form; the round bladder-dart heads with distinct tenon in the base; the long, slender ice picks; hooks for net fishing; flipper toggles; boxes of antler for arrow heads; quiver rods; the edged or elongated bola balls; swivels for dog traces; thong-studs for the kayak; flat hammers; two-handed scrapers<sup>1)</sup>; baleen shaves of flint; a local variant of the cup-shaped fat scraper; blubber drippers; the special flensing implement; blubber hooks with several prongs; wolf and fox masks, and the many forms of amulets, although some of them are known from Pt. Barrow.

Thus we see that if we proceed from Pt. Barrow westwards, the especially Western Eskimo elements increase rapidly in number, the culture becomes more characteristic, richer, with greater variation in the types of implements; and many individually impressed objects occur which cannot be grouped under regular types.

If we keep to the objects illustrated from Pt. Hope, they may then be arranged in the various groups in the following manner: In the Thule Group: Pl. 12. 1-5, 10, 11, 16; Pl. 13. 2-3, 10-11; Pl. 14. 3, 14, 16; Pl. 15. 1-2, 4, 8-10, 16, 17; Pl. 16. 5, 11, 13; figg. 14 and 17. In the group which, besides the Western Eskimos, is also known from the present-day Central Eskimos, but not from the Thule Culture: Pl. 14. 1-2, fig. 16 (and partly fig. 18).

The especially Western Eskimo — presumably later — group: Pl. 12. 6-9, 11; Pl. 13. 1, 4-5, 8, 12, 14-16; Pl. 14. 7-13, 15; Pl. 15. 5, 7, 11-14; Pl. 16. 14-15; all the objects on Pl. 17 and figg. 18, 20 and 22.

The following may be mentioned as being individually impressed objects: the drag-line handles Pl. 12. 13 and 17-18; bracers Pl. 14. 1-2; the dagger Pl. 15. 6; the thimble holders Pl. 16. 1-3; the toolbag handle 4; the combs 6-10; and some of the objects on Pl. 17.

It is curious that the Pt. Hope collection does not contain a single harpoon head of the Birnirk type, which was common at Pt. Barrow and is also known from finds more to the west. The same thing, however, applies to Stefánsson's collection from Pt. Hope; it would seem as if the Birnirk harpoon head has not been used at all there, or at any rate only to a small extent. On the other hand the Thule harpoon heads proper occur in relatively large numbers in finds from Pt. Hope.

<sup>1)</sup> One of these is, however, known from N. E. Greenland: Thomsen Pl. XXVI. 5, but not from the Central Thule finds.



## VI. The East Cape Collection.

*East Cape*, the most easterly point of Siberia, is still an important Eskimo habitation; Bogoras <sup>1)</sup> states that there are 48 houses with 299 inhabitants. But since very early times this place, from which communication between Asia and America is easiest, has been occupied by Eskimos. Knud Rasmussen, who paid a brief visit to East Cape in 1924 before he was expelled by the Sovjet authorities, there acquired a collection of Eskimo relics excavated by the natives, numbering 168 specimens. This collection has previously been briefly mentioned and a number of the objects illustrated <sup>2)</sup>.

As was the case with the two collections last described, this one contains objects of apparently very different ages. It is striking, however, how predominant the Thule Types are in this find.

Of the *harpoon heads*, the Thule types are very much in the majority; whereas 22 have the open shaft socket, there are only 6 with closed sockets. Pl. 18.2-5 (P25.1, 5, 3 and 7) <sup>3)</sup> exhibits several of the harpoon heads in this collection: No. 2 belongs to Type 1, of ivory; it has only one pair of holes for the lashing round the shaft socket. Nos. 3-5 are of Type 3, which is predominant (18 specimens in all); 3-4 are of antler with slots, 5 of ivory with two pairs of holes. A fourth head is of this type, of ivory, with slots; it is ornamented with converging longitudinal lines with short transversal lines and a stippled line, and at the base of the spur there are two parallel, curved lines with short transversal lines. The largest harpoon head of this type is of whale bone with a single pair of holes; it is 11.9 cm long.

Pl. 18.6 (P25.14) is a peculiar harpoon head of ivory which differs from the usual Thule types in having two opposite spurs, whereby it recalls the harpoon heads of the Cape Dorset Type, a fact that has caused me to mention the possibility that in this we were face to face with the prototype of that type <sup>4)</sup>; with the long distance from East Cape to the most westerly finding place of the C. Dorset harpoon, King

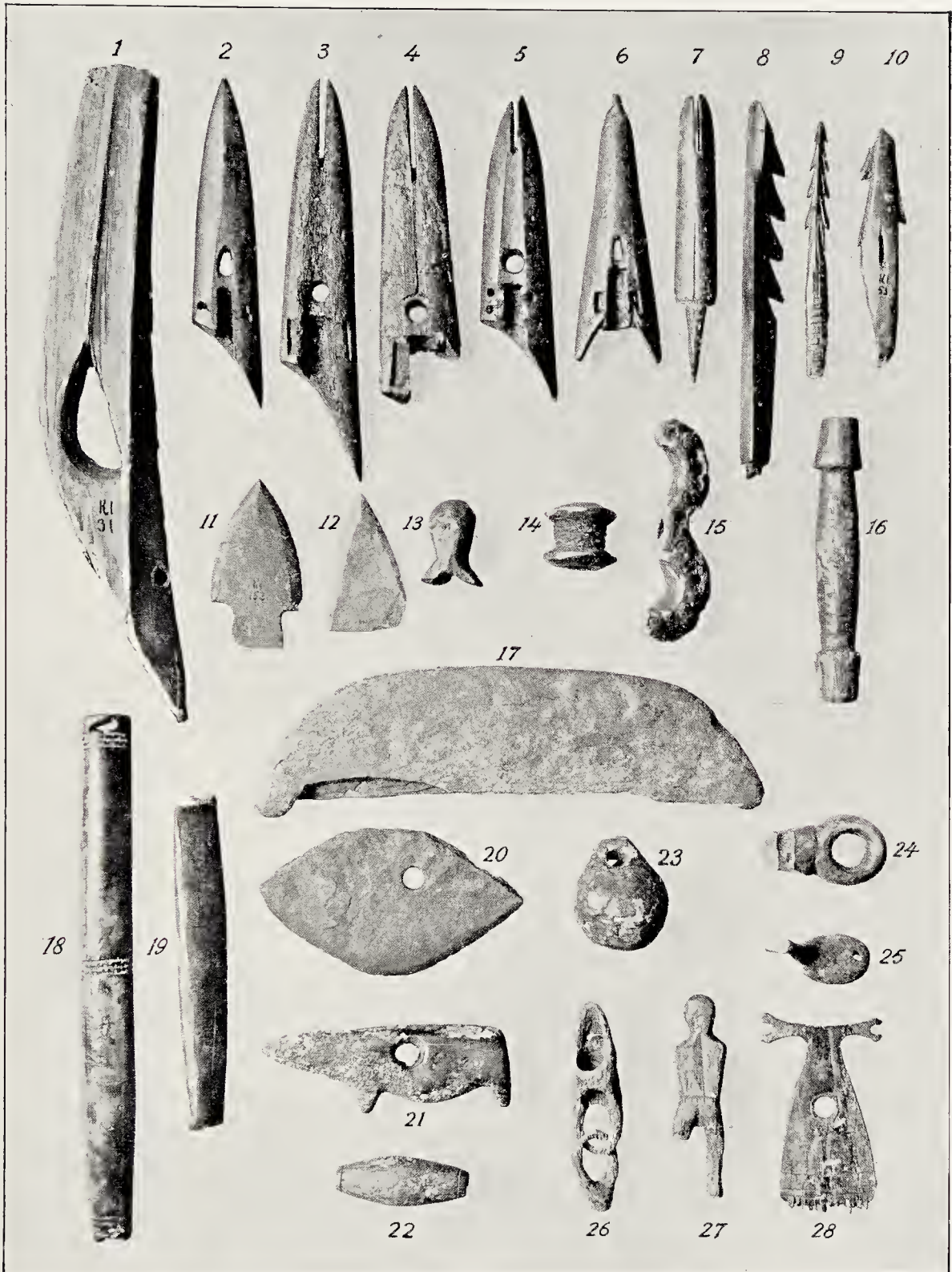
<sup>1)</sup> 1904, p. 30.

<sup>2)</sup> Mathiassen 1927, II, p. 177—79.

<sup>3)</sup> The specimens from East Cape have museum numbers P25.

<sup>4)</sup> Mathiassen 1927, II, p. 28.

Pl. 18







William's Land, this would, however, seem rather problematic. But in the University Museum at Philadelphia there is a harpoon head<sup>1)</sup> with an open shaft socket, two opposite spurs and a Y-ornament in front of the line hole, whilst the fore end is broken off; it is from Pt. Barrow, and thus shows that this termination at the base is not an individual phenomenon, but that it really is a type of harpoon head that has been known both at East Cape and at Point Barrow.

Of the harpoon heads with closed socket, most are of the ordinary, common type with the blade parallel to the line hole; one of them has an iron blade. One is of the slightly flat type with two dorsal spurs and also has an iron blade.

Pl. 18.1 (P25.20) is a *whaling harpoon head* of ivory, slender, sharp-cornered in section, of antique appearance.

Pl. 19.1 (P25.95) is of ivory, round and blunt at the fore end, pointed at the base, with a pair of holes; it is like the *foreshaft* of an ice-hunting harpoon of the fixed type, otherwise unknown from the Western Eskimos; there is the possibility, however, that the pointing and the basal hole are something that is secondary.

Pl. 18.11-12 (P25.112 and 114) are two *harpoon blades* of faceted slate, the former without, the latter with a tang; there are several specimens of this latter type, with lengths up to 6.9 cm.

Pl. 18.13 (P25.26) is a *finger rest* for the harpoon shaft, bent slightly backwards and with an arched fore side, of a form that is known from the Naujan Find<sup>2)</sup>. Other finger rests are more simple, pointed at the top and leaning well back, whereas one is shaped like a seal head, another like a whale tail; they are all of ivory.

Pl. 18.14 (P25.28) is a *bladder mouthpiece*, of ivory. Several others are of the same form, whereas one is wider at one end and is oval in section. Two bladder plugs are of the same shape as the mouthpieces, but have no hole.

Pl. 18.16 (P25.34 a) is a piece of ivory for holding the line on the harpoon bladder.

Pl. 18.15 (P25.32) is a *drag-line handle*, an ancient, much weathered piece of ivory inlaid with a row of dark wooden pegs; its form is known in the Thule Culture<sup>3)</sup>. Other handles are in the form of seals, one a double head like Pl. 12.17.

A *bracer* of ivory is oval, very arched, decorated along the edge with a double border of short, alternating transversal lines.

Pl. 18.19 (P25.35) is a *sinew twister* of the usual type, of ivory.

Pl. 18.8 (P25.37) is an *arrow head* of ivory, triangular with sharp

<sup>1)</sup> Museum No. NA9597.

<sup>2)</sup> Mathiassen 1927, I, Pl. 5. 2.

<sup>3)</sup> I. c. Pl. 41. 7 and 82. 16.

corners; the conical tang is partly broken off; a similar one has only one barb; Pl. 18. 7 (P25. 39) has a blade slit, but no barb; it is of antler. A defective specimen is a slender flint arrow head, with a short, pronounced tang (of the type Pl. 14. 4). A club-shaped bird-dart head has the fore end divided into four protuberances and has shaft socket.

Pl. 18. 23 (P25. 42) is a *bola ball* of ivory, and 10 (P25. 41) is apparently the fragment of a *side prong for a bird dart*, similar in form to Pl. 9. 7.

Pl. 18. 9 (P25. 47) is a small *leister prong* of ivory. A very small *fish hook*, entirely of ivory, has four thin, bent-up barbs; another, very defective, has had a copper hook. Pl. 19. 2 (P25. 21), of ivory and oval in section, is possibly a *trout needle*, an implement which, however, is otherwise unknown from Western Eskimo material. A number of more or less fusiform pieces of ivory, 5 to 12 cm long, have probably been sinkers for fishing nets or hooks; most of them have a suspension hole at the thinner end; one has four longitudinal grooves for a line.

Pl. 18. 24 (P25. 53) is very like the *trace buckles* with the holes at right angles to each other that we know from the Naujan find <sup>1)</sup>. Two pieces of a *swivel* are quite like the swivel of a dog-trace figured by Bogoras <sup>2)</sup>. A piece of another type of swivel, of ivory, will be seen on Pl. 19. 10 (P25. 99).

Pl. 19. 3 (P25. 52) is possibly an ivory ferrule for a *snow probe*; a piece of the wooden shaft accompanies it; two other specimens are of similar form. The snow probe is otherwise not mentioned in the literature on the Western Eskimos, but in the collection from Pt. Barrow there are objects which, as already mentioned, are indicated as being ferrules for snow probes; they are, however, heavier than the East Cape specimens.

A slate blade, 10.9 cm long, pointed, rather wide, two-edged, polished, with a tang, is apparently for a knife, and a jade blade, not very sharp, polished, 5.0 × 4.2 cm, is for an *adze*. Pl. 18. 18 (P25. 54) is a *bow* for a bow drill, or a carrying handle, of ivory, ornamented.

Pl. 18. 17 (P25. 55) is an ancient *ulo handle* of ivory, of the Thule type, whereas Pl. 19. 16 (P25. 56) is a more modern ulo handle of ivory, with the remains of an iron blade. Pl. 18. 20 (P25. 121) is an *ulo blade* of slate; another specimen has the hole cut out, whilst a third lacks the hole.

Pl. 19. 15 (P25. 58) is a *needle case* of ivory; the two oval projections at the top have inlaid bone pegs, possibly to represent eyes. Another needle case is of a rather widespread Alaskan type, Nelson Pl. XLIV. 32, but without the usual knobs on the sides.

<sup>1)</sup> Mathiassen 1927, I, Pl. 14. 3.

<sup>2)</sup> 1904, fig. 26 b.







A heavy point of ivory, 12.3 cm long, with stepped face with three holes at one end, is apparently for a *blubber hook*. An old hook of ivory, 9 cm long, with a large hole at the top, is apparently a pot-hook.

Pl. 18. 28 (P25. 60) is a *comb* of ivory, at the bottom decorated with a row of Y figures and a double line with alternating cross lines. Other combs, both of ivory, will be seen Pl. 19. 14 and 17 (P25. 63 and 62); the former looks to be fairly new.

Pl. 18. 22 (P25. 64) is a tubular *bead* of ivory; others have round the middle a border of alternating transversal lines; this is a type that is also known from the Naujan find <sup>1)</sup>. Pl. 19. 7 (P25. 107) is a round head of ivory, decorated with four lines with short, double, transversal lines. Pl. 18. 26 (P25. 71) are two connected, much weathered *chain links* of ivory. An almost spherical *button* of ivory has at one side an eye, formed of two incised slots.

The find contains three *labrets* — an ornament that is not otherwise known among the Siberian Eskimos, although tattoo marks at the places where the labret is usually worn would indicate that they have been used in former times <sup>2)</sup>. One of these is a novice's labret, the second is heavier (Pl. 19. 12. P25. 72), and the third is flat, oval, rather hollow on one side (Pl. 19. 13. P. 25. 73); they are all of ivory.

Pl. 18. 27 (P25. 75) is a small *doll* of ivory, without arms or face; but it is so much weathered that one cannot decide whether the latter is original or not. Pl. 18. 21 (P25. 67) is a *bear figure* and 25 (P25. 69) is one of the *bird figures* that are so well-known from the Thule Culture, with flat base, both of ivory.

A *toy ice-pick* of ivory, 6.6 cm long, is of the peculiarly Alaskan form, slender, slightly curved, with a wedge-shaped upper end.

Nothing definite can be said about the use of a number of objects; some of them are shown on Pl. 19. 4-6, 8-9 and 11 <sup>3)</sup>; they are all of ivory.

### General Remarks.

The close association of the East Cape collection with the Thule Culture has already been pointed out. Of its implement types all those figured on Pl. 18, Pl. 19. 1-3, as well as all the knife and adze blades and the pot-hook belong to the Thule Culture. Of objects that are not known from the Thule Culture we have Pl. 19. 4-16 and also the harpoon heads with closed socket, the finger rest in animal form, the bracer, fish hooks, sinkers, swivels, needle cases and the blubber hook. Several of these, however, by their patina or by having iron blades prove

<sup>1)</sup> Mathiassen 1927, I, Pl. 31. s.

<sup>2)</sup> Bogoras 1904, p. 254—56.

<sup>3)</sup> P25. 96, 94, 86, 85, 102 and 108 respectively.

that they are of later date than the rest of the collection. But all in all it may be said that *the East Cape collection indicates that in this most easterly part of Siberia there has once been a culture that was extremely like the Central Eskimo Thule Culture*; and this is confirmed by the small collection which Nordenskiöld's Vega Expedition excavated at North Cape on the north coast of Siberia<sup>1</sup>).

As was the case with the Pt. Hope collection, there are no harpoon heads of the Birnirk type in the East Cape collection, whereas in both the Thule harpoon heads occur frequently.

Right opposite East Cape lies *Cape Prince of Wales*, the most westerly point of America; the distance between these two places is not great, and, what is more, the *Diomed Islands* form a stepping stone between them. From Cape Prince of Wales and its nearest environs the National Museum in Copenhagen has a small collection made by V. Jacobsen, who has lived in Alaska for many years. Of the harpoon heads in this collection five of them are of Thule type 3 (two of them with slots, one with one pair of holes and two with two pairs for the lashing round the socket), and four have closed sockets (two of them with the blade slit at right angles to the line hole); in this case too we see that the Thule harpoon heads predominate.

In 1926 D. Jenness made systematical archaeological excavations on Cape Prince of Wales and on Little Diomed Island, the first ever made in these regions, and his results must therefore be looked forward to with great interest. So far he has only issued a short report<sup>2</sup>), but even in this there is much that is of interest. What is of particular importance to us here is his discussion regarding the various types of harpoon heads (P. 76—77 and Pl. XII).

On Cape Prince of Wales, Jenness found in the oldest house ruins at the highest elevation, dating from the period anterior to contact with Europeans, harpoon heads of exclusively Thule types, i. e. Type 3, some with slots, others with holes for the lashing. In ruins of the period about 1700 (Russian influence started) he found both these Thule types and the more modern type with closed shaft socket and the blade parallel to the line hole. In a refuse heap on Little Diomed Island Jenness found the following conditions: "In the upper layer there were only closed socketed harpoon-heads of different varieties; lower down, nearly all had open sockets with drilled holes for the lashings; and at the 3-foot level the open socketed type with rectangular slots or no holes at all for the lashing began to predominate." And he says: „Evidently the seventeenth and early part of the eighteenth centuries were

<sup>1</sup>) See Nordenskiöld 1880, I, p. 428 and Mathiassen 1927, II, p. 179.

<sup>2</sup>) Arch. Inv. in Bering Strait, 1926, 1928.



transitional periods in the Bering Strait, during which all three types were in current use."

It is surprising to see that it is not more than a couple of hundred years since the Thule harpoon heads were in use there at Bering Strait; and really, from their patina and appearance many of these harpoon heads from East Cape and Cape Prince of Wales do not seem to be especially old. Jenness makes the interesting observation that the Thule harpoon heads with holes for the lashing seem to be later than the one with slots or simply a groove. Is this a general rule that may be applied to the whole of the Eskimo region?

At East Cape the two forms occur promiscuously. At Point Hope too, and of the two specimens so much alike in patina and outer form as Pl. 12. 2-3, one has two pairs of holes, the other slots. The ancient specimen from Pt. Barrow has holes, the similarly old specimen from Barter Island has slots, and the Pt. Atkinson specimens have holes; but in none of these collections do we know the stratigraphical conditions under which the specimens were found. To turn to the Central Thule finds: at Naujan (Arch. Centr. Esk., I, Pl. 1) we find the two types indiscriminately, and indeed in the same house ruin (for instance Pl. 1. 3-4 and 8-9 in ruin IV and Pl. 1. 7 [which has slots] and 11-12 in V); in the finds from house ruins at Ponds Inlet (which are later than Naujan) they also occur promiscuously, and we have both types from the same ruin at Qilalukan (Pl. 39. 3 and 7); from Kûk we likewise have both types, and the same applies to the Malerualik find, which is perhaps the most ancient of them all. Only in the find from Comer's Midden have we exclusively the type with holes; the slot type is, however, known from other Greenland finds, including those from the Cape York district<sup>1</sup>). Thus it seems that no general rule can apply; the one method seems to be just as ancient as the other. There is, however, something that might indicate that the method with the holes is the one that *has held out longest*. This is, that this method is predominant in Comer's Midden (which is the latest of the large, collective finds), in the grave finds at Naujan, and also on the latest, flat harpoon heads with open socket<sup>2</sup>).

On page 77 Jenness also touches upon the discussion on the age of the Birnirk harpoon heads in relation to those of the Thule Culture, and arrives at the conclusion that they are older than the latter. It is true that he found none himself during his systematical excavations, but a Bering Sea harpoon head (Pl. XIII. 1) was found eight feet down in a refuse heap when excavating a meat cache, and a Birnirk harpoon

<sup>1</sup>) Mathiassen 1927, II, fig. 10. 3.

<sup>2</sup>) l. c., I, Pl. 40 and 65, and Mathiassen, Iglulik Eskimos, fig. 10. 9-10.

head with side flint blade (Pl. XII. 3) was purchased from an Eskimo on Little Diomedé Island, whilst in the Philadelphia Museum there is one from Cape Prince of Wales. Even if there are no decisive proofs in these circumstances that these types of harpoon heads are older than those of the Thule Culture, there is much that indicates that they have gone out of use in these regions before them; none of them were found in ruins which display contact with Europeans, and besides, the patina of these types indicates that they are fairly ancient, whereas several of the Thule harpoon heads have a younger appearance. At Pt. Barrow I would suggest that the Birnirk harpoon heads were the latest, the Thule harpoon heads the earliest; at the Bering Strait the reverse seems to be the case. How is this to be explained?

In my paper on the Bering Sea Culture in "Indian Notes" I have sought to explain the Birnirk type as a cross between the Thule and Bering Sea types. The influence that has caused this crossing has apparently come from the south, has first affected the Bering Strait and has there produced the Birnirk type which had already displaced the Thule types there in very early times; somewhat later the influence has reached Pt. Barrow, but in return the Birnirk type there has held out longest. At the Bering Strait, however, the Thule types have again become predominant (through the advance of new Thule people from Asia?), and there they have held out longer than both at Pt. Barrow and in the Central regions, right up to about the end of the seventeenth century. The conditions seem complicated, and the explanation given will possibly be rejected later on when some day the so badly needed archaeological investigations in the Bering Strait region are undertaken.

## VII. General Discussion.

With this we have now concluded the examination of these five collections of Western Eskimo relics. On account of their character, especially the lack of chronological data, the conclusions that can be drawn from them are very restricted and are mainly limited to a number of questions of detail concerning the types of the various implements. But in addition they raise various problems of more general nature, without it being possible as a rule to solve them satisfactorily by means of the material before us; in this connection, however, some assistance is provided by the latest investigations that have been made in Alaska, even if the results of these for the present are only available in very brief form <sup>1)</sup>).

### Remarks on some of the types of implements found.

As far as the *harpoon heads* are concerned, we notice that in all the finds there are some of the Thule type, in the most easterly finds only very few, ancient-looking specimens, whereas at East Cape they predominate. The Birnirk harpoon heads only occur in the Pt. Barrow collection, where they seem to be later than the Thule types, whereas a few of them are also known from the Bering Strait, where various circumstances indicate that they are earlier than the Thule types; these circumstances have been thoroughly discussed in the foregoing.

With regard to the harpoon heads with closed socket, there seems to be an age-difference between those with the blade at right angles to the line hole and those with the blade parallel to it, the former in the Western regions seeming to date much further back than the latter; this has already been observed by Wissler <sup>2)</sup>), the former being predominant in the Birnirk find whereas the latter was in the majority in the later Cape Smythe find, and it also is predominating among all the later Alaska harpoon heads. The type with the blade at right angles to the line hole already appears in the Bering Sea Culture <sup>3)</sup>) and in the

<sup>1)</sup> Jenness, Arch. Inv. Ber. Str.; J. Alden Mason, Amer. Congr. 1928.

<sup>2)</sup> p. 440.

<sup>3)</sup> Mathiassen, Indian Notes, 1929, fig. 1.



Van Valin collection from Pt. Barrow<sup>1)</sup>, and, if we turn to the Central Thule culture, we find it so far back as in the Naujan find<sup>2)</sup>. It is apparently a very ancient form, as indeed its very wide distribution, already pointed out by Thalbitzer<sup>3)</sup>, indicates. On the other hand it has remained in use in the Central regions, as for instance the walrus harpoon of the Iglulik Eskimos<sup>4)</sup>.

Finally, we have the slightly flat harpoon heads, all of which have a closed socket. They occur most frequently in North Alaska, at Pt. Barrow and Pt. Hope; there is a single specimen also in each of the other finds, East Cape, Barter Island and Pt. Atkinson, although in the latter case it is only a rather new one. It seems to be the youngest group of harpoon heads in Alaska; but there seems to be an age-difference between two types: the one with barbs is not known outside the boundaries of the Alaska-Mackenzie region and appears to be very young; on the other hand the type without barbs and with the blade parallel to the line hole also occurs at East Cape, and in the Central regions it occurs for instance in the Naujan find<sup>5)</sup>; it is this type that is so predominant in the N. E. Greenland finds<sup>6)</sup>.

With regard to the *harpoon foreshafts*, we have both the long, slender, fusiform Thule type with single hole, often unilateral, and the small, round form with median hole, which does not seem to extend east of Pt. Barrow. The corresponding *socket-pieces*, in contrast to the Central Eskimo types, always have a wedge-shaped or, more rarely, a conical butt; a local form, widened out to both sides at the fore end, is found east of Mackenzie. Of *ice-picks* we find the simple Thule types from Pt. Barrow eastwards, whereas the more modern Alaskan type, long, slender, with wedge-shaped upper end, is represented in the Pt. Hope and East Cape collections.

The long, heavy *bladder dart heads*, which are also known from the Thule Culture, are found westwards to Pt. Barrow and are especially prominent on Barter Island; the later Alaskan form, quite small and with a flat base, is only in the Pt. Barrow and Pt. Hope collections. At Pt. Hope we also find another, late local form, round, with a distinct tenon at the base.

The *arrow heads* do not vary much; all have conical tangs, and nearly all are barbed, oftenest with one barb. As regards the shape of the tang<sup>7)</sup> the following table shows the condition in the different collections:

<sup>1)</sup> J. Alden Mason, Amer. Congr. 1928.

<sup>2)</sup> Mathiassen 1927, I, Pl. 2. 1.

<sup>3)</sup> Ammassalik Eskimo p. 432.

<sup>4)</sup> Mathiassen, Igl. Esk., fig. 10. 3-4.

<sup>5)</sup> Mathiassen 1927, I, Pl. 2. 3.

<sup>6)</sup> See for instance Thomsen Pl. XIII. 4-5, and figg. 5. and 6 c-d.

<sup>7)</sup> Wissler, p. 443.

	Pt. Atk.	Barter I.	Pt. Barrow.	Pt. Hope.	East C.
No knobs .....	11	4	7	9	2
Knobs at same height .....	5	2	6	8	0
» » different » .....	1	0	1	0	0
Circular shoulder .....	1	12	2	0	0

We see that the various patterns are used indiscriminately; and yet local differences are observable, as at Barter Island, where the circular shoulder predominates, whereas no or opposite knobs is otherwise the rule. None of them have any indication of a screw-thread.

Of *weapon blades of stone* the triangular, faceted harpoon blades especially are common in all the collections; in contradistinction to those of the Central Thule Culture they are almost all without holes. The broad lance blades with tang and the long, slender arrow heads with short, distinct tang, both of flint, are in their pronounced form not known from the Central Thule finds and therefore must be taken to be specially Western types.

In the *fish hooks* local forms have been shown at Pt. Atkinson and Barter Island; the handsome sinkers at Pt. Atkinson are also a local form.

*Ice scoops* of antler are present in the two westerly finds; they also occur, however, in the Van Valin collection from Pt. Barrow.

Point Barrow is the most westerly place from which we have *snow knives*; on the other hand, from Pt. Hope we have two specimens which seem to be snow shovels. The snow knives at Pt. Barrow all are without shoulders; one, however, is of whale bone and rather broad, with a knob on the end of the handle, whereas the later type is more slender and with the handle whipped with baleen or the like. In the more easterly finds, Barter Island and Pt. Atkinson, we have the broad snow knives with one shoulder, of whale bone, whereas the commonest type of the Thule Culture, with two shoulders, is not known at all from the west and must have originated in the Central regions.

All the *men's knives* of the Thule Culture and their blades recur in the Western Eskimo finds. One of these types is apparently the prototype of the later crooked knife that became so common. Special North Alaskan features, scarcely very old, are the row of holes to hold the whipping on the knife handles, and the suspension hole drilled through the handle where it is widest.

The fine *sharpening stones* of jade or siliceous slate, with a hole or a groove for suspension, are only present in the collections from Pt. Barrow and Pt. Hope; from the same two places we have *flint flakers* of flint of the especially Alaskan form; on the other hand they

<sup>1</sup> J. Alden Mason, Amer. Congr. 1928.

do not occur in the two easterly finds; they seem to have spread to the Mackenzie region only at a late period, but never east of it.

Of *ulos* we find representatives of nearly all the variants of the Thule Culture, and also a later, specially Alaskan form, small, segment-shaped, ornamented, which reaches eastwards as far as Barter Island. The *baleen shave*, which at Pt. Barrow was found in the same form as in the Thule Culture, seems at Point Hope to be replaced by a rather different implement of flint.





The *scrapers* vary somewhat from place to place. At Pt. Atkinson we still find the handle of the Thule Culture, with a pronounced bending in the plane of the blade; at Barter Island this has disappeared for the type with a bend at right angles to this plane, a type which we also find richly represented at Pt. Barrow and Pt. Hope; apparently this is the first link in the series that has here created the many special Alaskan scraper-handles, very arched, with or without sockets for the fingers, which are still in use.

The cup-shaped fat scrapers of the Thule Culture are represented at Pt. Barrow and Pt. Hope, the latter by a small local variant; here we also found the two-handed scraper.

*Needle cases* in human form are only known from Pt. Hope and to the west, whereas at Pt. Barrow they are replaced by the winged needle case; but needle cases of other, individual forms also occur.

*Thimble holders*, *combs* and *amulets* occur especially in the more westerly finds in large numbers, very varying in form; hardly two specimens are the same; these objects provide a rich field for individual ingenuity.

The *slate ornaments*, which are only found at Pt. Atkinson, are associated with those of the Thule Culture. *Labrets*, on the other hand, occur in all the finds and in large numbers; but they are not known outside the Western Eskimo region and thus can scarcely be very old, which in fact is confirmed by the fact that they are not present in the Van Valin collection from Pt. Barrow<sup>1</sup>).

Furthermore, it is the same *ornamental motifs* that recur in all the collections, although in this respect the collections from Pt. Barrow and Pt. Hope are much richer than those from more to the east. Besides the usual Thule patterns:    Y we also come across Ψ, which I consider to be the original of Y, and  ☉ ☼; and of course we also find realistic etchings, especially of caribou.

### Degeneration of Art from Alaska to the East.

If a collection of objects from Alaska is compared with a collection of similar objects from the Central Eskimos, the latter will appear to

<sup>1</sup>) J. Alden Mason, Amer. Congr. 1928.



be much poorer; not only are the various objects as a rule much less well made, but much more ingenuity and art have been spent upon the Western objects than the Central ones, and, for instance, decorative embellishment is almost entirely lacking on the Central objects, a feature that Boas<sup>1)</sup> has already drawn attention to.

If now we compare a collection of Western Eskimo relics with one from the Central Thule Culture, we again get the same impression — that as one proceeds eastwards one moves from something rich to something poorer. True, the Thule Culture may seem rich when compared with the present-day Central Eskimo culture. In the Thule Culture we do find some decorated objects, but not nearly so many as in a collection from North Alaska. Thus a retrogression, a degeneration, seems to be observable when we come to the Central regions, even in very ancient times. This is not only true of the decorative art; it is also applicable to the very form of the implements. The rich individualism, the manifold forms which we find in North Alaska, disappear and leave room for comparatively few, often conventional, stiffened types. It is as if inventiveness diminishes, the desire to create something new and beautiful, which unfolds itself so luxuriantly at the splendid hunting grounds of Alaska, disappears as we get further east, where conditions of life become more severe and everything must be devoted to the struggle for existence.

A number of examples have already been referred to in the foregoing, and several may be added here: the needle cases in human form stiffen into the gradually unrecognisable winged needle case; the handsomely carved dolls with arms and featured face become the plain Thule dolls with flat face and no arms. The wealth of forms of the combs and thimble holders fades away and is substituted by a few forms; the many amulets and other objects connected with religious life disappear almost entirely: the material side of the culture practically ousts the spiritual side.

On the other hand, however, a direct comparison between a collection from the Thule Culture, for instance the Naujan find, and one of the collections from North Alaska described in the foregoing, will not be quite satisfactory; the former will show the culture at Hudson Bay in a definite period, whereas the latter contains objects of very varying ages and consequently may give a somewhat richer impression. The question is now: how old is this rich display in Alaska; is it not a comparatively new phenomenon, developed after the Thule Culture had spread eastwards?

I do not think it is. Certain proof of it can only be presented when we have a bigger collection, taken from a very limited, ancient period

<sup>1)</sup> Boas 1901, p. 367.

in Alaska and thus directly comparable with the Central Thule finds. But there are already things which indicate that the display of art is very old in Alaska: In the collections described in the foregoing it is in fact often the most old-looking specimens that are most handsomely made and richly decorated, and of course the discovery of the Bering Sea Culture also indicates that artistic workmanship becomes richer the further back we go; in the Van Valin collection, too, there are a number of decorated specimens. And finally, the two easterly collections, Pt. Atkinson and Barter Island, provide us with an indirect proof: These two collections date from a limited period and are not particularly old, presumably from the time just prior to contact with Europeans; their poverty in art and in forms of implements on the whole does not indicate that the great wealth of forms that we find in Western Eskimo collections of antiquities is a comparatively new feature; we find here a similar poverty and degeneration to that already found in the much older Thule Culture. In more westerly Alaska the culture has, on the other hand, retained its vivacity up to the present day, of which we receive a clear impression on perusing the books of Murdoch, Nelson and Hoffman. These regions seem to have always been productive of a high state of culture.

### **Sledges and dog traction.**

Strikingly sparse is the evidence of sledges and dog-traction in these Western Eskimo collections: From Pt. Atkinson there is nothing at all, nor from Barter Island; from Pt. Barrow a piece of a baleen toboggan (Fig. 6) and a wooden stick (fairly new?), stated to be a toggle for a dog trace (Pl. 9. 14); from Pt. Hope and East Cape we have parts of swivels for dog traces (or harpoon lines?) (Pl. 15. 7), and from the latter place an object that is supposed to be a trace buckle of the Thule type (Pl. 18. 24), an identification that is not quite certain, however<sup>1</sup>). Of these objects the swivels and the toggle apparently belong to the modern method of spanning, with the dogs in a long row. The only objects which recur in the Central Thule Culture is the toboggan<sup>2</sup>) and the rather doubtful trace buckle. But none of these is evidence that the simple Central type of sledge with heavy runners, on which the cross slats are lashed, or the fan-shaped span, have been known. The collections, which contain as many as about 3400 objects, do not contain a fragment of a sledge shoe or of a sledge cross-slat or runner, and not a single trace buckle of the usual Central type, with two holes in the same direction; one specimen which resembles this, from Point Hope, is stated to be a block for an umiak sail. Compared with this

<sup>1</sup>) Cf. Nelson, p. 210 and Pl. LXXXVI. 3-5.

<sup>2</sup>) See Mathiassen 1927, II, p. 62.

the Naujan find<sup>1)</sup>, (Central Thule Culture) which has about the same number of specimens (nearly 3000), contains 61 pieces of sledge shoeing of bone and 55 of baleen, 9 sledge cross-slats, 3 toggles for draught line and 18 trace buckles, besides a piece of a toboggan baleen. Thus in all there are 147 specimens bearing evidence of dog traction. And the same applies to the other Central and Greenland finds (from arctic regions); everywhere these objects occupy a rather prominent place in the find-material.

If we extend our area of investigation to other large archaeological collections from the Western Eskimos, such as Stefánsson's collection from Birnirk in New York, and the Van Valin collection<sup>2)</sup> in Philadelphia, the impression given by Knud Rasmussen's collection is confirmed: None of them contains definite evidence of dog traction, whereas the Van Valin collection (almost pure Thule Culture) contains two primitive sledge runners. Nordenskiöld's collection from North Cape<sup>3)</sup>, Siberia, has no specimens of either sledge or harness.

The first question that arises is then: Is there anything in the very character of the collections, and the manner in which they have been compiled, that may have effected this striking difference between the Western and the Central finds? There is firstly this difference, that the Central finds were excavated in a systematical and careful manner, whereby everything, including fragments and unfinished objects, were brought along, whereas the Western finds were excavated by Eskimos or other inexpert labour, who presumably as a rule have only retained good specimens, whilst most of the broken objects, or those of insignificant appearance, have been thrown away; this in fact is very characteristic of the finds from Pt. Barrow and Pt. Hope, but not the Barter Island collection, whose excavator expressly writes that he has collected everything in accordance with Knud Rasmussen's desire.

Then again one might imagine that there would be a difference in the fact that the Western finds possibly exclusively come from house ruins, whereas the Central finds have also been taken from refuse heaps outside the houses, where remains of sledges more easily land than in the houses themselves. But this explanation will not stand inspection either: If we examine what was found inside the ruins themselves at, for instance, Naujan<sup>4)</sup>, we will find that pieces of sledge runners, trace buckles and the like were often found, as for instance in ruin II: a piece of a whale bone shoe, a cross slat, three trace buckles; in ruin IV: two pieces of bone shoeing, a toggle for draught

<sup>1)</sup> Mathiassen 1927, I, p. 43 seq.

<sup>2)</sup> J. Alden Mason, Amer. Congr. 1928.

<sup>3)</sup> Mathiassen 1927, II, p. 179.

<sup>4)</sup> I. c., I, p. 11—20.



line, three trace buckles; in V: a cross slat, two pieces of shoeing, two trace buckles; in VIII: nine pieces of sledge shoeing, four rivets for same, two fragments of cross slats, four trace buckles, and two doubtful whip handles. Thus we see that, in the Central regions, pieces of sledge may very well find their way into the houses. The lack of evidence of the sledge in the earlier Western finds thus raises the question of the age and importance of dog traction in these regions, in fact within the whole of the Eskimo culture.

We find dogs as domestic animals over almost the entire globe and right back to the Palaeolithic period. *Dog traction* is more limited in its distribution, being principally restricted to the northern parts of Eurasia and America. Kai Donner <sup>1)</sup> has made it probable that as far back as in the thirteenth century the dog was the most important draught animal in the northern Ural regions, for which reason Sirelius <sup>2)</sup> considers some sledge remains of the early Litorina period, found in Finland, to be of a dog sledge. Jochelson <sup>3)</sup>, who discusses this question in detail, thinks that dog traction was once more widespread in Siberia than it is now, especially in West Siberia. The Siberian tribes that now exclusively employ the dog as a draught animal are the Ainu, Gilyak and Kamchadal; it is, however, also employed by Reindeer Nomads such as the Ostyak, Samoyede, Tungus, Yukaghir, Chukchi and Koryak. In America, apart from the Eskimos it is used by various northern Indian tribes. There the use of the dog as a pack-animal is much more widespread, for carrying burdens, tent poles; it is used over the whole of the forest region and great parts of the plains in North America; there a special development is represented by the travois that we find among certain plains' tribes <sup>4)</sup>.

In South America the dog is not used as a draught animal, and this, together with its geographical distribution and various other factors, brings Wissler to the opinion "that dog traction was intrusive to the New World" and "that it came in with the earliest Asiatic settlers" is improbable <sup>5)</sup>.

Morice <sup>6)</sup> draws attention to the fact that the northern Dénés only in the course of the past century began to make dogs draw their toboggan, whereas previously it was drawn by women, and that for instance the Ingalik in Alaska have adopted the "railed sledge" from the Eskimos.

Birket-Smith <sup>7)</sup>, too, arrives at the conclusion that dog traction among the Indians is scarcely Pre-Columbian.

<sup>1)</sup> 1927.

<sup>2)</sup> 1928.

<sup>3)</sup> 1908, p. 502 seq.

<sup>4)</sup> See for example Wissler, *Amer. Ind.*, p. 31.

<sup>5)</sup> *Am. Ind.*, p. 32.

<sup>6)</sup> p. 436 seq.

<sup>7)</sup> 1929, II, p. 169.

Among the Eskimos we find three main types of *sledges*:

1) The Central form, the simple runner sledge with two fairly heavy runners placed on edge, connected by means of a number of cross slats. It is the same type, more slender, shorter, and fitted with up-rights, that we find in Greenland, and we also find it among the Western Eskimos, where it has partly been in general use in the Mackenzie region<sup>1)</sup>, and has partly been retained as the little "flat sledge" or *unia* that is used on short hunting trips and especially for transporting heavy loads, hunting spoils, boats, and the like; this type of sledge is mentioned from the Mackenzie district<sup>2)</sup>, Pt. Barrow<sup>3)</sup>, St. Lawrence Island<sup>4)</sup>, the Siberian Eskimos and Coast Chukchi<sup>5)</sup>. This type of sledge is the Eskimo type proper, adapted to driving on the frozen sea; the heavy runners and their solid connection by means of the cross slats make them strong enough to stand the violent shocks invariably experienced when driving in pack ice. Birket-Smith<sup>6)</sup>, who discusses the various types of sledge in detail, places this latter type in connection with primitive sledges in East (Ainu, Gilyak) and Central Asia and Europe, whereas in America it is not known outside the Eskimo region, a supposition which looks quite probable.

Associated with this form of sledge is the fan-shaped span, which is also specially adapted to sea-ice driving; it is still used in the Central regions and in Greenland; it seems, however, to have been used in earlier times by the Siberian Eskimos<sup>7)</sup>; apart from the Eskimos it is used by several Siberian peoples<sup>8)</sup>.

2) Among the Western Eskimos another type of sledge is now used: the elegant but slender "railed sledge", with slender, rather curved runners on which is a row of vertical uprights which bear the top-piece: a number of cross slats, often curved, on which laths lie lengthwise, and at the sides a railing. It is a type that, in different varieties, is widely spread in Siberia, as far as dog traction is at all known, and similar forms are also used for reindeer traction; apart from the Eskimos it is used by various Western Indian tribes and it is also this sledge that white trappers and hunters generally use in Alaska. To this form is connected the tandem span: the dogs in a long row, tied singly or in pairs to a single trace.

This form of sledge has apparently come to Alaska from Siberia

<sup>1)</sup> Petitot, p. 11.

<sup>2)</sup> O. T. Mason, 1896, figg. 251—52.

<sup>3)</sup> Murdoch, fig. 357.

<sup>4)</sup> Nelson, Pl. LXXVI. 1.

<sup>5)</sup> Bogoras 1904, fig. 22 b.

<sup>6)</sup> 1929, II, p. 167.

<sup>7)</sup> Bogoras 1904, p. 99.

<sup>8)</sup> Birket-Smith 1929, II, p. 170.

in comparatively recent times. Like the foregoing, however, it often has whale bone shoeing<sup>1</sup>).

3) Finally, we have the runnerless sledge, the toboggan, occasionally used by the Central and Western Eskimos, especially in soft snow, and also in various forms used by the Forest Indians in North America; and, by the way, the pulk of the Lapps is another form of the runnerless sledge.

If after this survey of the distribution of dog traction and the various types of sledge we proceed to consider how matters are among the Western Eskimos, we should expect to see in earlier finds remains of the Central type of sledge, but not of the "railed" type. In this connection we may disregard the toboggan, as it has scarcely played any important part in the Eskimo culture. In the archaeological finds from the Western Eskimos we only see few remains of the "railed" type, and these are scarcely very old; in the Van Valin collection we find two runners of the "flat" sledge; in the two Eastern finds, Barter Island and Pt. Atkinson, there are none.

Having regard to the geographical distribution and great age of dog traction in Eurasia and the Central Eskimo region, we must take it as being quite precluded that the Western Eskimos did not know it in some form or other in olden times; but it does not seem to have played any prominent part in the culture. That small forms of the Central type of sledge have remained in use for special purposes at several places among the Western Eskimos indicates that it is a type that was used before the "railed" type intruded from Siberia. It must then be assumed that the Western Eskimo Thule Culture knew the Central type, but in those large settlements where meat was plentiful, where they lived in the same place all the year round, this sledge was of less importance as a travelling vehicle than for short trips and for transport purposes; the umiak has then apparently been the principal means of conveyance on long journeys, which usually took place in summer. But when the Thule Culture Eskimos during their movement eastwards came to regions where the big aquatic mammals were less abundant, drift-wood more scarce and with less open water, it was only then that the dog sledge attained the dominating position in the culture that it still has in these regions, whereas on the other hand the importance of the umiak diminished until it entirely disappeared: it now became necessary to make long winter journeys, and for this purpose the dog sledge was indispensable. But it is remarkable that we have so few traces of the Central type in the Western finds; this is a circumstance to which attention should be directed when making future investigations.

<sup>1</sup>) Murdoch, p. 353; Nelson, p. 207; Bogoras 1907, p. 106.



### Earthenware and Soapstone.

These collections contain only very few soapstone vessels, mostly lamps (Pt. Atkinson, Pl. 4. 7, Pt. Hope, fig. 16), the form of which distinctly says that they have been imported from eastern regions, from the Copper Eskimos, which is in accordance with the information obtained by Stefánsson <sup>1)</sup>. On the other hand, several of the collections contain ceramic, both of the primitive, slightly burnt type made in the hand (Pt. Atkinson, Pl. 2. 9), which we can follow eastwards over King William's Land to Repulse Bay <sup>2)</sup>, and the type that is built up of strips of clay (Pt. Hope, fig. 17).

The opinion of which I have made myself the advocate in the aforementioned paper p. 105, that earthenware among the Western Eskimos is older than soapstone vessels, whose earlier forms seem to have been modelled from earthenware vessels, has been strengthened by the fact that the Van Valin collection from Pt. Barrow — almost pure Thule Culture — does not contain any soapstone, but on the contrary a good deal of earthenware of the usual loose, slightly burnt type, some flat, round lamps, some round cooking pots <sup>3)</sup>. Nor in Stefánsson's Birnirk collection, the East Cape collection and Nordenskiöld's collection from North Cape <sup>4)</sup>, do we find soapstone vessels, but an abundance of earthenware at Birnirk and North Cape. It looks as if soapstone vessels did not belong to the earliest Thule Culture, but have first become of importance when this culture reached the Central regions, while at the same time earthenware declined and finally disappeared entirely.

That the soapstone technique has not been entirely unknown in the Western regions in earlier times is, however, seen from a soapstone lamp of the Thule type from East Siberia <sup>5)</sup>, but its form has apparently been greatly influenced by that of the clay lamp.

In his investigation into the culture of the Caribou Eskimos Birket-Smith <sup>6)</sup> has arrived at another conclusion as to the position and origin of the Eskimo *lamp* than the one presented by me, as he regards the very small, flat, soapstone lamp of the Caribou Eskimos, adapted for reindeer fat and used exclusively for illumination, as being the earliest form, from which the other forms were later developed when the Eskimos reached the coast and adapted their lives to it and, among other things, learned to use blubber for the lamps; only then was the lamp also used for heating and cooking.

<sup>1)</sup> 1914, p. 68.

<sup>2)</sup> Mathiassen 1927, II, p. 105.

<sup>3)</sup> J. Alden Mason, Amer. Congr. 1928.

<sup>4)</sup> Mathiassen 1927, II, p. 179.

<sup>5)</sup> Nelson, Pl. XXVIII. 3; Hough 1898, Pl. 17. 1.

<sup>6)</sup> 1929, II, p. 100 seq.

The lamp is so important an element in the Eskimo culture that its origin and development is a question of the greatest magnitude, as Hatt <sup>1)</sup> also points out in his review of my archaeological work. It was Hough <sup>2)</sup> who, in his work on the Eskimo lamp, first established its fundamental importance to the habitation of the Arctic coasts of North America. To some extent Birket-Smith endeavours to reduce its importance, assuming that the lamp for lighting purposes is older than that for heating and cooking. This is very probable when one takes the distribution and development of the lamp on the whole, including outside the Eskimo region <sup>3)</sup>. Undoubtedly, the original purpose of the lamp was for illumination, as it still is in civilized countries where there is ample access to other fuel for heating. This latter may also be said to be the case in the Sub-arctic regions of Alaska, but on the other hand scarcely in the real Arctic regions that are inhabited by Eskimos. There we know of only one case at all where the lamp is not used for cooking and heating, but only for illumination, and that is among the Caribou Eskimos on the Barren Grounds west of Hudson Bay. The question is, then, whether the lamp of these Eskimos is really the earliest form of Eskimo lamp or whether it is not rather a very reduced form, adapted to reindeer fat as they have no blubber, and thus exclusively used for lighting, whether it should thus not rather be called degenerate than primitive. Birket-Smith argues that a people that has once known the blubber lamp would scarcely ever have abandoned it, but would have purchased blubber from the coast dwellers. But might there not have been causes, unknown to us, of their abandoning it: taboo rules or hostile relations with the coast dwellers? We have quite an analagous example in the Sadlermiut, the inhabitants of Southampton Island, who, owing to the arrival of new people at the coast, became isolated and could not procure soapstone for lamps and cooking pots, and had to make these of limestone <sup>4)</sup>. However, the question cannot be answered by means of speculation as to whether the lamp of the Caribou Eskimos is primitive or degenerate; it is of much wider range.

Among the Eskimos we have two main forms of lamps, one round or oval, of clay and stone, and a half-moon shaped, of soapstone. Of these the former is, judging from its shape, the most primitive, and it has its principal territory in the Western regions. The half-moon shaped soapstone lamp is found in the Central regions and in Greenland; it is now also found in North Alaska owing to an importation from the east — a fairly late one, judging from the evidence of ar-

<sup>1)</sup> 1928, p. 11.

<sup>2)</sup> 1898.

<sup>3)</sup> See Birket-Smith 1929, II, p. 189 seq.

<sup>4)</sup> Mathiassen 1927, II, p. 192.

chaeology. The soapstone lamp of the Thule Culture with its rounded half-moon shape is an intermediate form between the two main forms, and it also has a row of knobs or a moulding along the wick-edge, probably a primitive feature, possibly connected with the way of lighting the lamp: with a row of moss dots, while now finely hacked moss is used for a wick<sup>1</sup>). I consider the rounded shape of this lamp to be a derivative of the shape of the clay lamp, as I believe the clay lamp to be older than the soapstone lamp; and in fact we have (from St. Lawrence Island) clay lamps with a similar wick moulding to that of the Thule lamps. These chronological elements are confirmed, as stated above, by the archaeological material from Alaska and Siberia.

Birket-Smith refers to the narrow geographical distribution of the clay lamp and to the fact that there are on the whole so few of them. To this it may be said that the clay lamp has now also been disclosed at Pt. Barrow; if we take the fragile character of Eskimo earthenware into consideration, there is nothing remarkable in the fact that so few lamps have been preserved; on the whole stretch between Coronation Gulf and Davis Strait we have hitherto only been able to produce three small sherds of Eskimo ceramic. The disappearance of the clay lamp was undoubtedly helped by the wandering life to which the Central Eskimos were bound; to them the much more durable soapstone lamp was superior by far.

As the most primitive (and earliest) lamp among the Eskimos Birket-Smith sets up a naturally hollow stone. In this I am not certain that he is right. The lamp did not originate among the Eskimos, but came to them from the outside (presumably from the west). He states that many Eskimo tribes occasionally use such hollow stones as lamps and explains these as an ancient, widely distributed, special form of lamp, but I believe the explanation is much more simple: If a man knows anything at all of lamps and their use, he will, if his lamp gets broken or for any other reason is not at hand, quite naturally look for a substitute, whether this be a hollow stone or an enamel pot lid. On Southampton Island I have myself looked for a naturally hollowed piece of limestone to use as a lamp when we had moved inland from the coast to a salmon lake and had left the large, heavy soapstone lamp behind. These emergency forms need not necessarily have any mutual connection.

If we take the distribution of lamps outside the Eskimo region, it most certainly looks as if we have to do with an element from the Old World. Apart from the Northwest Indians and the Beothuk, who may very well have copied it from the Eskimos, we have no certain

<sup>1</sup>) See Mathiassen 1927, I, p. 270, where this primitive method is described from Southampton Island.



lamp in America. An oily fish with a wick in it cannot be directly compared to a bowl-shaped lamp; and the stone vessels found by archaeologists in western North America, to which Birket-Smith refers, are very problematic. If such a useful element as the lamp had once been generally known in America, it is strange that it has not been retained in more places.

All in all I must thus maintain that the lamp is an Asiatic element that first made its way to America via the Eskimo culture, presumably in the form of round or oval clay lamps, later of soapstone; and the consequence of this must be that the small illuminating lamp of the Caribou Eskimos is to be called degenerate.

With regard to *cooking pots*, Birket-Smith<sup>1)</sup> considers soapstone pots, too, as being earlier than clay pots. In the west, round clay cooking pots predominate, both now and in old finds (Van Valin, Birnirk); but here, too, we find an importation of soapstone pots from the east, although this importation is fairly recent, as the archaeological finds show. In the Thule Culture we find, besides unidentifiable remnants of clay vessels, rounded soapstone pots, which are also predominant in Greenland; as the Thule Culture comes from the west, I must still maintain that the natural explanation to me is that these rounded soapstone cooking pots bear the impress of the round forms of the clay pots. That the rectangular Central soapstone pot is a late form is a matter on which Birket-Smith and I agree; but when he concludes from this that the cooking pot has originated in the Central regions, I cannot follow him. On the contrary, the distribution of the various forms seems to point to a western origin. But that a clay vessel may also be formed after a soapstone one (presumably fairly recently imported) is shown by the specimen referred to by Birket-Smith from St. Lawrence Island; this, however, is apparently an exception (recent?).

In support of the hypothesis of the great age of the soapstone cooking pot, Birket-Smith refers to the fact that stone cooking pots are widely distributed in North America; this, however, need not mean anything to developments within the Eskimo culture, which in many respects seems to have followed its own course.

### **The Thule Culture in the Western regions.**

In my former work<sup>3)</sup> I have arrived at the conclusion that the Thule Culture arose in the Western regions, presumably on the coasts

<sup>1)</sup> 1929, II, p. 104.

<sup>2)</sup> l. c., p. 192.

<sup>3)</sup> 1927, II, p. 182 seq.

north of the Bering Strait; from there it has then spread eastwards over Arctic Canada and Greenland, as far as the arctic climate extends. The question is now: how has this Western original Thule Culture been in appearance? Of the elements found in the Central Thule Culture there are undoubtedly some which have first come to the Central regions, arising by adaptation to local natural conditions or added as a consequence of influence from the outside. But which of the elements of the Thule Culture are original, and which of them have come in later?

There are two ways we can go to answer this question: The most certain is to dig and find ruins or horizons with pure Thule Culture in the Western region. This has only been done to a very small extent hitherto; there are only two collections that may be taken into consideration in this respect: the Van Valin collection from Pt. Barrow, on which we have only Dr. J. Alden Mason's preliminary report so far, and Nordenskiöld's small collection from North Cape, Siberia, which has not been published in detail either. But we can also go another way: Examine the distribution and occurrence of the Central Thule Culture in the Western regions; if a Thule element occurs there, now or in earlier finds, there is some probability that it has also been known in these regions in the time of the Thule Culture. In this respect we will confine ourselves to the regions that must be regarded as the home of the Thule Culture, the regions round and north of the Bering Strait, eastwards to and including Pt. Barrow, westwards to the mouth of the Kolyma.

The Western Thule Culture must thus be assumed to have possessed the following elements<sup>1)</sup>:

Harpoon heads of the Thule type (thin, open socket, one spur) (Pll. 12. 1-1 and 18. 2-5. N); harpoon heads differing from these in having two opposite spurs (Pl. 18. 6); harpoon heads, thin, with closed socket and a blade at right-angles to the line hole (Pl. 12. 5. V); whaling harpoon heads (Pll. 13. 1 and 18. 1); triangular faceted harpoon blades (Pll. 8. 2-3, 18. 12. V); fixed foreshaft for ice-hunting harpoon (Pl. 19. 1 ?); loose, slender harpoon foreshafts (Pl. 12. 10. V); heavy socket pieces for foreshafts (Wissler, figg. 42—43); ice pick, simple, with scarf-face (Wissler, fig. 40); finger rest for harpoon (Pl. 7. 5-6 and 18. 13. V); bladder mouthpiece (Pll. 7. 8-9 and 18. 14); bone or wooden holder for bladder (Pl. 18. 16); heavy bladder-dart heads (Wissler, fig. 34); moveable lance heads (Pl. 8. 1. V); broad lance blades with

<sup>1)</sup> The illustrations in this work are referred to in parentheses; if the type in question is not figured here from the region concerned, reference will be made to other literature or collections as evidence of its presence. The types in the Van Valin collection are marked with a V, those in Nordenskiöld's North Cape find with an N.

tang (Murdoch, figg. 239—40. V); wound pins (Pl. 12.14); drag-line handle (Pll. 12.16 and 18.15); sealing stool (Murdoch, fig. 256); seal scratcher (Murdoch, fig. 253. V). Baleen bow (Bogoras, fig. 72); bow-stave of wood, composite (V); sinew twister (Pl. 18.19); marline spike (Murdoch, fig. 285); bone arrow heads with conical tang and barbs (Pll. 9.1-3 and 18.8, fig. 5. V. N) and without barbs (Pll. 14.3, 18.7); stone arrow heads with tang (Pll. 7.16-17, 14.6); bracers (Pll. 7.11-12, 14.1-2. V. Not found in Central Thule Culture); knife for pressing out water (Pl. 8.9 ?); wolf killer (Murdoch, fig. 258). Side prong for bird dart, with bilateral barbs (Pll. 9.7, 18.10. V); throwing board (Museum Journal, Philadelphia, 1928. V); bola balls, crudely formed (Pll. 7.20, 18.23); gull hooks, pointed at both ends (Murdoch, p. 260); barbs for salmon spear, with prominent neck (Pl. 9.10-11); composite fish hook (Murdoch, figg. 270—71); trout needle (Pll. 7.22 ? and 19.2 ?); ice scoop of antler (V); leister teeth (Pll. 14.16 and 18.9. V); feather cutting-board (Birniirk); fish decoy (Nelson, Pl. LXVIII g); fish trap (Murdoch, fig. 278); fish weirs (Bogoras, p. 149). Dog sledge of Central type (Murdoch, fig. 357. V.); sledge shoes of whale bone (Murdoch, p. 353); trace buckles with the holes at right-angles (Pl. 18.24); toboggan of baleen (fig. 6); umiak (Murdoch, p. 235); kayak (Murdoch, p. 328); paddle, double-bladed (Murdoch, fig. 340) and single-bladed (V); broad snow knife without shoulder (Pl. 8.10); snow shovel (Murdoch, figg. 306—7. V); mattock (Murdoch, fig. 303. N); ferrule for snow probe (Pl. 19.3 ?); long handles for flensing knives (Pll. 10.2 and 15.1); short knife handles with end blade (Pll. 10.1 and 3, 15.2. V); knife handles with side blade-socket (Pl. 10.7); knife handle of two longitudinal pieces (Pl. 10.4. V); two-edged stone blade (Pll. 10.1, 15.1. 9 and 16. V, N); single-edged stone blade (Pl. 15.8. N); pointed bone knife (Pl. 8.8); simple whetstone, without hole (Pt. Hope. N.); bone heads for adzes (Pll. 8.13-14, 13.2-3. V. N); adze blades, their sides forming almost as right angle (Pl. 9.9. V); large stone blades for adzes (Pl. 8.12. V); drill bows (Pl. 18.18 ? V); bow drills with separate fore-shank (Pl. 9.18); bow-drill mouthpieces of caribou astragalus (Murdoch, fig. 282. V); drill bits of stone with wedge shaped point (Pl. 9.15-16); hand drill (Pl. 9.19); wedges (Nelson, Pl. XXXIX.4-7. V. N); flint flaker, of the crust of walrus rib (V ?, N ?); hammer (Pl. 13.7. V); ulo of stone with baleen-whipped handle (fig. 9); ulo handle without tang (Pll. 10.9 and 11-12, 18.17. V); ulo blades of slate (Pll. 13.10-11, 18.20. V. N); baleen shaves (Geogr. T. 1928, p. 205, fig. 4.12; Murdoch, fig. 146); scraper blades of stone with curved edge (Pll. 10.14, 15.10. V); cup-shaped fat scrapers (Geogr. T. 1928, p. 205, fig. 4.5; Murdoch, fig. 300); sewing needles with eye (Murdoch, figg. 325—26); needle cases in



human form (fig. 14. V); the anchor-shaped thimble holder (Pl. 11. 4-6, 16. 1-3., fig. 14); thimble of skin (fig. 14); bone bodkin of caribou ulna (V) and seal leg bone (V). Round clay lamps (V); rounded soap-stone lamp with row of knobs on front edge (Nelson, Pl. XXIII. 3); round clay cooking pots (fig. 17. V. N); lamp trimmers of stone (Pt. Hope); oval bowl with vertical sides, of baleen or wood (Murdoch, fig. 18. V); bowl hollowed out of wood (Murdoch, fig. 19. V); spoons and dippers (fig. 11. N); marrow extractors (Nelson, fig. 20); large hooks, for pot or meat (Pt. Barrow); fire drilling (Murdoch, p. 289); boot with several pairs of loops for the lace (Murdoch, fig. 81); snow beaters (Nelson, fig. 21); snow goggles (fig. 12); combs (Pl. 11. 7-9, 16. 5-10, 18. 28, 19. 17 and fig. 21); pierced teeth (Birnirk); cylindrical beads (Pl. 18. 22); drop pendants (V); chain links (Pl. 14. 14-15 and 18. 26. N); brow band (Pl. 16. 11 ?); dolls with face and arms (Pl. 17. 1); bird figures (Pl. 18. 25); bear figures (Pl. 18. 21); bull-roarers (Pl. 11. 10); tops (Pl. 16. 13). The ornamental elements  $\Psi$ ,  $\Upsilon$ , |||||, |||||, ||||| (Pl. 10. 3, 11. 3 and 8, 12. 1, 16. 2-3, 5-6, 11 and 13, 17. 1 and 13, 18. 4, 18. 22, 27-28 and 19. 17) and realistic etchings (Pl. 7. 11, 16. 7 and 10, 17. 4). Amulet boxes (Murdoch, figg. 426 and 428) and a few objects of uncertain use: small bone pieces like Mathiassen 1927, 1, Pl. 33. 5 (V, Birnirk) and specimens like l. c. Pl. 34. 1 (Birnirk). To these, however, probably belong some of the amulets and other objects connected with religious life (especially on Pl. 17). Finally, to these we must add the whale-bone house and closed grave (of stone or wood)<sup>1)</sup>.

With these we have gone through the list of archaeologically established Thule types known from the Western Eskimo region and presumably known there in the time of the Thule Culture. Naturally, this list does not by any means comprise all the elements of the now disappeared Western Thule Culture; a large number have not been shown archaeologically and will scarcely ever be so shown.

As some of the elements the presence of which in the Thule Culture may be concluded by their present geographical distribution I have previously<sup>2)</sup> named the gut skin frock, urine tanning, the song contest, the "arctic sinew-backing" of bows<sup>3)</sup> and the fan-shaped dog span. Jenness<sup>4)</sup> is of the opinion that the list should be increased with seal-nets of baleen, a question that has not yet been entirely clarified, however.

<sup>1)</sup> See Mathiassen 1927, II. to which reference must also be made regarding the occurrence of the above-mentioned Thule types.

<sup>2)</sup> 1927, II, p. 196.

<sup>3)</sup> l. c. p. 43.

<sup>4)</sup> Review of Arch. of Cent. Esk., Geographical Review, Oct. 1928.

Birket-Smith<sup>1)</sup> furthermore names the following as elements that have probably been known in the Thule Culture, some of which may be called common-Eskimo and thus have presumably also belonged to the Thule Culture, whereas others by their present distribution indicate that they have been characteristic of the Thule Culture; the latter are marked with (T): Ridge tent (T); tower trap (T); eye shade (T); seamless and edge-sewn bags, bird-foot bags, rectangular wooden trays, water bottles, urine vessels, meat forks, oval dippers (T), spoons, sucking tubes, slings, three radial feathers on arrows (T), Mediterranean arrow release, quivers, bird snares, caribou fences, "peep hunting", ice shoeing, dog harness with two parallel loops (T), swivel of ring-form and prolongation on one side (T), whip with thin handle and lash (T), dog socks, tump line, the two-skin frock, combination suit, hose, needle-and-thread tattooing (T), lice catcher, fire-striking, cutting board, arrow straightener, sewing technique, coiled basketry, realistic mask (T), football and handball, tug-of-war handle, wrestling, string figures, buzz<sup>2)</sup>, boat sails (T), decorating with drawn strips of skin (T), and drums.

It is very probable that most of these elements belong to the Thule Culture, even if we know nothing definite about this; as regards elements such as the swivel and the arrow straightener, however, I am not so sure; possibly they have in later times spread out beyond the Eskimo region.

To this list I would also add the snow house with foundation which, according to Birket-Smith<sup>3)</sup>, is the prototype of the snow house proper in the Central region.

As we proceed eastwards from Pt. Barrow towards the Central regions, new elements are constantly being added to the Thule Culture. This already begins whilst we are on Western Eskimo ground: At Barter Island the broad snow knife with one shoulder makes its appearance; at Pt. Atkinson the scraper handle with the grip bent in the plane of the blade, and the slate pendants; in Langton Bay we find definite stone-set graves<sup>4)</sup>.

And if we go to the Central regions, a large number of new elements appear: the fixed foreshafts for ice-hunting harpoons, with

<sup>1)</sup> 1929, II, pp. 23, 25, 26, 57, 58, 59, 60, 61, 63, 64, 69, 70, 71, 73, 74, 75, 79, 92, 94, 96, 97, 112, 114, 117, 118, 119, 120 and 232.

<sup>2)</sup> On account of a confusion between buzz and bull roarer in one place in my book (1927, I, p. 281) Birket-Smith has thought that I have changed these two terms althogether, which however is not the case, cf. B.-S 1929, II, p. 120 below and the corresponding footnote.

<sup>3)</sup> 1929, II, p. 44.

<sup>4)</sup> Stefánsson 1914, pp. 212 and 311.

scarf-face at the butt; tubular socket pieces; tension pieces for the harpoon line; loose lance heads and bone lance foreshafts; bird harpoon heads with shaft socket; the various stone traps; gull hook with oblique point; trace buckle with holes in the same direction; snow knife with two shoulders; knives with several side blades; stone scraper with bent-over handle and scraper of caribou scapula; soap-stone cooking pots; blubber pounders of antler; ajagag and nuglutang games.

Simultaneously with the appearance of these elements, the changes occur that have already been referred to: the disappearance of earthenware and the rapid advance of soapstone working; the greatly increased importance of the dog sledge; the degeneration and stiffening of art, whereby the winged needle case and the primitive dolls with flat face appear.

But while the culture becomes poorer from an art point of view, a number of new, practical implements appear: The Central Thule Culture all through acquires a more sober and practical character compared with the Western branch from which it emanated; the sterner natural surroundings are apparently responsible for this.

The question of the *origin of the Thule Culture* is incomparably more difficult to answer, and at the moment can scarcely be answered satisfactorily. Did the Thule Culture develop by the Bering Strait out of a still older Eskimo culture? These important questions cannot be settled until more extensive excavations are made round the Bering Strait. In the first place, we know too little with certainty about the Western Thule Culture, although the recent finds, especially the Van Valin collection, have taken us a good way on; and next, we do not know much about the relationship between the Thule Culture and the Bering Sea Culture; and finally, we do not know whether below them both there is not a still older, more primitive Eskimo culture. Once it has been elucidated, by means of excavation, which of the elements of the Thule Culture have developed in Alaska and which of them have come in from the outside, it will then be possible to start upon the task of finding out *where* these latter elements have come from. Some of them are undoubtedly very old and widely distributed; others are younger and have a narrower distribution. This investigation must, of course, be very comprehensive and extend over large parts of the earth. It will then be an investigation similar to that which Birket-Smith has recently made into the culture of the Caribon Eskimos, an investigation which necessarily must also touch upon the question of



the origin of the Eskimo Culture. It would lead too far, however, to examine these extensive questions here, where the object has merely been: to describe the archaeological collections brought home by Dr. Knud Rasmussen from the Western Eskimos and draw the conclusions that are justified by these collections; and beyond these limits I shall not go here <sup>1</sup>).

<sup>1</sup>) My opinion on the origin of the Eskimo Culture, and especially my attitude towards Birket-Smith's theory as to this, has been advanced in the paper "Spørgsmaalet om Eskimokulturens Oprindelse" in *Geografisk Tidsskrift* 1929, which will appear in English in *The American Anthropologist*.

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